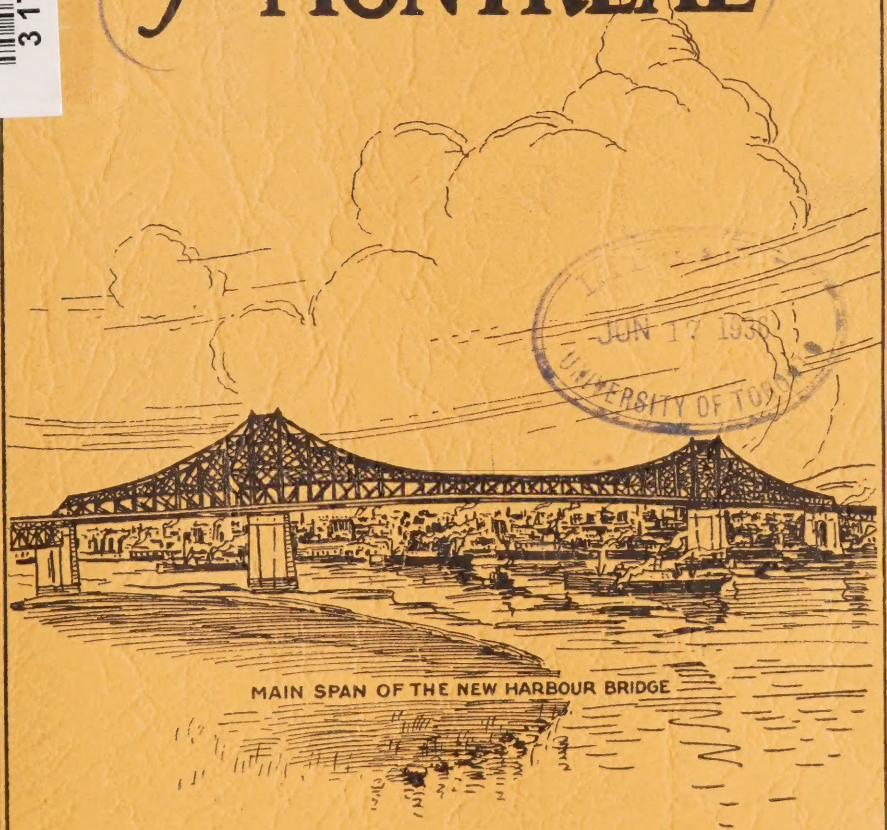
The HARBOUR of MONTREAL



MAIN SPAN OF THE NEW HARBOUR BRIDGE

ANNUAL REPORT
1927

ANNUAL REPORT

OF THE

Harbour Commissioners

of Montreal

For the Year 1927

COMMISSIONERS:

HON. W. L. McDOUGALD, President

Dr. MILTON L. HERSEY, LL.D.

EMILIEN DAOUST, Esq.

CENTRAL SECTION OF THE HARBOUR.

Harbour Commissioners of Montreal

MONTREAL, 1ST APRIL, 1928.

To the Hon. P. J. ARTHUR CARDIN, M.P., P.C.,
Minister of Marine,
Ottawa, Ont.

Sir:—

In compliance with Section 51 of the Commissioners' Act 57-8 Victoria, Chapter 48, the Harbour Commissioners of Montreal herewith respectfully submit their Annual Report of operations for the year ended 31st December, 1927.

We have the honour to be,
Sir,

Yours very respectfully,

W. L. McDOUGALD, President.
MILTON L. HERSEY,
Commissioner.

IN PRESENTING their Annual Report for the year Nineteen hundred and twenty-seven, the Harbour Commissioners of Montreal take this opportunity of recording their appreciation of the unfailing support and courteous co-operation of the Minister of Marine, the Hon. P. J. Arthur Cardin, and his Deputy Minister Mr. Alexander Johnston, and the other officers of the Department at Ottawa, whose kindly interest has been of very material assistance to them in the solving of the many problems which they were called upon to deal with during the year.

Harbour Commissioners of Montreal

ANNUAL REPORT

1927

THE YEAR'S ACTIVITIES

The results of the year's operations at the Harbour of Montreal in 1927 were exceptionally gratifying. As the season of navigation progressed, the Commissioners had the satisfaction of seeing record after record first equalled, and then passed, until by the end of the year an almost complete set of new records had been established.

Repetition of the fact that the Harbour of Montreal has succeeded year after year in creating new records in the various branches of its multiple lines of enterprise, becomes almost monotonous. But however tiresome the writing or the reading of such statements may become, the achievement of these records makes such intense demands on the physical equipment and the personnel of the Port, that their realization is always the cause of fresh interest and enthusiasm. The season of 1927 provided ample cause for enthusiasm. The total business of the Port this year exceeded previous figures by a wider margin of increase than had ever before been recorded.

Of outstanding importance is the commodity tonnage statement, which recites the imports, exports and domestic tonnage passing over the wharves during the season of navigation. The previous highest figure was reached in 1926, with a total of 9,210,699 tons. In 1927 the total was 11,921,173 tons, an increase in a single year of almost 30%. To realize this tremendous total, large gains were necessary in both

imports and exports, the bulk of the increases being represented in these classes by coal imports and grain exports respectively, but to swell the total there was a gratifying and steady growth in a number of other commodities. The following statement shows the increase in each classification over 1926:—

	1927 tons	1926 tons
Imports	2,693,535	2,028,162
Exports	6,175,485	4,549,835
Domestic	3,052,153	2,632,702

The total tonnages of imports and exports and domestic commodities over a period of years are as follows:—

1921	6,223,924 tons
1922	8,585,131 "
1923	7,506,872 "
1924	8,985,589 "
1925	9,137,281 "
1926	9,210,699 "
1927	11,921,173 "

Shipping Increases

It is, of course, but natural when tonnages of commodities carried bulk larger, that the tonnage of shipping to carry those commodities should also indicate an increase. The portion of this report devoted to Shipping will give classified statistics of the number and tonnages of shipping which traded to the Port of Montreal in 1927, and it is therefore sufficient here to state that the ocean-going vessels numbered 1,610 of a net registered tonnage of 4,992,486 tons as compared with 1,421 ships in 1926 having a net registered tonnage of 4,221,730 tons.

Grain Exports—New Records

For some years past the Commissioners have directed their efforts towards an objective in this matter of exporting

grain from the Harbour of Montreal. That objective was the figure of 200,000,000 bushels of grain. For many seasons it looked as though this figure would be achieved if the volume of the outward flow at the start of the season was maintained in adequate proportion during the remaining months, but while the grain exports show a constant and notable increase over a period of years (excepting 1926, when the British strike disrupted the grain market), it was not until 1927 that this objective may be said to have been finally reached. The total grain deliveries from the grain elevators of the Harbour Commissioners of Montreal in 1927 amounted to 195,247,914 bushels. A more complete analysis of the salient features of this grain movement will be found in the paragraph on Grain in this Report, but it will be interesting here to indicate total grain exports since 1923:—

1923	120,107,990	bushels
1924	165,139,399	"
1925	166,212,335	"
1926	135,897,882	"
1927	195,247,914	"

Coal Imports

In the business of importing coal, the Harbour set up three new records, viz., largest tonnage of British anthracite coal ever imported; largest tonnage of Nova Scotia coals ever brought up to Montreal; and largest total tonnage of all imports of coal. Of most outstanding importance is the movement of British house coals to Canada. So large has this trade become that consumers of anthracite coals in Montreal and vicinity are evidently using this Scotch and Welsh anthracite to the almost complete exclusion of American anthracite. That it is a good thing to have household coal supplies secure from interruptions liable to be caused by strikes or other possibilities of embargo in the American fields will be agreed in by everyone familiar with the situation, apart from the desirability of living in fact up to the spirit of the slogan "Buy Empire Goods." But, of course, the interest of the Harbour

WHAT A CONTRAST THIS VIEW OF EARLY DAYS IN THE PORT PRESENTS WITH MODERN CONDITIONS.

Commissioners in this movement, while taking cognizance of the foregoing features, is based on two things, viz. (1) the fact that importers of British coals use the Harbour and its facilities for their unloading, with consequent important revenues to the Harbour Commission, and (2) that vessels which bring this coal from Britain usually load full cargoes of grain from Montreal for their return voyage.

Hereunder is a statement which shows the growth of the import movement of British anthracite coal:—

British Anthracite

1921	5,163 tons
1922	177,630 "
1923	111,234 "
1924	219,327 "
1925	438,841 "
1926	(British Coal Strike)
1927	683,090 "

Total Imports of Coal

1921	1,042,716 tons
1922	2,009,917 "
1923	1,660,009 "
1924	1,833,695 "
1925	1,697,143 "
1926	1,887,988 "
1927	2,448,477 "

Revenue

While all other indications are valuable, the "sinews of peace," to change slightly an antique method of describing moneys and funds, is of overwhelming importance in the eyes of the Commissioners. As year succeeds year, and the capital expenditure of the Harbour mounts to an impressive total, by reason of the constant improvements which are being made to the equipment of the Port, the provision which must be

made out of revenue to meet interest charges and rest accounts for retirement of debentures, shows proportionate increase. Thus, in 1927, interest on outstanding debentures (all of which are held by the Government) amounted to $1,916,004.44. Operation of the facilities, and maintenance of the valuable and expensive structures of the Port also calls for large annual outlays, and consequently, if the Harbour is to continue its proud boast of always meeting its payments as they fall due, and refusing to be in any sense a charge on the public purse, it is important that the revenues be maintained at a proportionate figure. But, in considering the matter of Harbour revenues, the Commissioners must never lose sight of the fact that their business is a highly competitive one, and that the volume of that business, its growth or shrinkage, its success or failure, depends in great measure on the keeping of the handling charges and Port costs at a low enough scale to attract commerce to use the Harbour of Montreal. A study of the history of Harbour charges in the past few years will at once show how carefully this phase of the Port is watched. At several intervals in that time, reductions have been made consistently in various rates and tariffs, notably in the grain tariff, but also in the wharfage tariff on individual commodities brought up for separate consideration. And notwithstanding this, the revenues over the same period of years have revealed an annual increase. The explanation of this apparent anomaly, viz., lower rates as against larger revenues, is to be found in a still greater increase in tonnage.

The following table shows the growth which has taken place in the Harbour revenues since 1921:—

1921	$2,891,274.42
1922	3,460,810.87
1923	3,721,159.99
1924	4,382,115.25
1925	4,749,100.69
1926	4,632,599.92
1927	5,453,951.56

Shipping in the Harbour of Montreal

During 1927 Debenture Series "M" amounting to $1,000,000 was retired, this sum having been paid to the Government out of Sinking Fund Reserve Account. Revenue from Grain Elevator System amounted to $2,712,670.18, and from Wharfage rates to $1,273,901.94. Rental of Sheds produced $324,235.49, and rental of Harbour spaces $221,172.06, while revenue from the Cold Storage Warehouse amounted to $239,748.85. The revenue from the Railway Traffic Department realized $481,606.56, but the operation and maintenance of this department cost $498,868.01, without allowing for interest, sinking fund, or administration expenses. To remedy this situation the Commissioners were compelled to make increases at the end of 1927 in the rates for switching and handling of cars on the Harbour tracks, of which more detail is given in another part of this Report.

Staff Changes

Important changes were made by the Commissioners during 1927 in the executive structure, and the allocation of duties of the staff. For some years the executive duties were divided between the General Manager and the Secretary, but upon the retirement from active duty of the Secretary, through failing health, the duties of General Manager and Secretary were combined. An Assistant General Manager and an Assistant Secretary were appointed, and the position of Purchasing Agent, made vacant through the promotion of the latter officer, was filled from the ranks of the staff. The Commissioners feel that the present arrangement is an entirely satisfactory one.

New Works

The Engineering Report, which will be found at the end of this volume, gives details of new construction and maintenance work carried out during the year 1927. The following are the more important items of new construction under capital account undertaken during the year:—

Construction of 3,000,000 bushels storage annex to Grain Elevator No. 3.

" " new high level wharf, Bickerdike Pier.

" " Bickerdike Pier basin and approach.

" " electrical sub-station, Hochelaga.

" " electric locomotive garage and equipment.

" " industrial wharf at Montreal East.

" " new high level shore wharf, Sec. 30-35.

Distinguished Visitors

The Harbour of Montreal was honoured in 1927 by the opportunity to extend its hospitality to H.R.H. the Prince of Wales, H.R.H. Prince George, and the Rt. Hon. Stanley Baldwin, Premier of Great Britain. These distinguished guests to Canada came to Montreal by steamship from Quebec, and were welcomed on the high level wharf at Section 12, which was named "Prince of Wales Wharf" in honour of the event. Their visit coincided with the celebrations in honour of the Diamond Jubilee of Confederation, for which the Harbour Commissioners prepared an extensive scheme of decorations, and as the arrival of the guests took place at night, illuminations were placed on points of vantage such as the grain elevators, the structure of the new Bridge, and other Harbour buildings.

The New Montreal South Shore Bridge

Attention is drawn to the report of progress on construction of the new Bridge which appears elsewhere in this Report. This article gives the salient features of the work which was done in 1927, and it is sufficient here to mention that the programme of completion of the various stages of this important work is being well adhered to, and it is confidently anticipated by the Commissioners that this new artery of traffic will be opened to the public within the time limit set for its completion.

EMILIEN DAOUST

Harbour Commissioner, 1922-1928

An Appreciation

On February 23rd, 1928, a notable career in Canadian public life came to a close with the death of Mr. Emilien Daoust, Harbour Commissioner of Montreal.

Appointed to the Board of Harbour Commissioners in January, 1922, Mr. Daoust brought to the service of the Port—which was the service of his country—a wealth of gifts and a quiet capacity for loyal service which not only endeared him to his colleagues on the Board, and to the rank and file of the Harbour staffs, but established in the hearts of his fellow-Canadians an enviable reputation for merit in arduous duties which will linger long in the annals of the Harbour.

Mr. Daoust's qualities were those of the student and the scholar. Not given to hasty decisions or snap judgments, he brought to bear on each problem of administration which was presented to him, a painstaking and earnest thoroughness, and a ripe knowledge of men and affairs. To his fellow-Commissioners, the void created by his untimely passing has left an irreparable sense of loss, and the officials and employees of the Harbour Commission mourn him, not only as an employer, but as a friend.

As President of Librairie Beauchemin Ltd., Mr. Daoust's life was devoted to the building on solid foundations of a firm which came to be known as a landmark in educational and literary circles in Montreal. Surrounded in his office on St. Gabriel Street by text-books and charts, atlases and the utensils of the school-room, a visitor would invariably find Mr. Daoust gravely discussing curriculum problems in his courtly manner with the head of some educational institution, or engaged in the preparation of data on the Port of Montreal.

In the years of success which have marked the development of the Harbour of Montreal since 1922, Mr. Daoust took a splendid pride. He associated himself to an extraordinary degree with the Port and its problems, and was never too

busy with other matters to attend a hurriedly summoned Board meeting whenever a serious problem presented itself.

But his most notable and characteristic trait, in the opinion of his fellow-Commissioners, was his devotion to humanitarian work. The humble and hardworking men whose job it is to labour with their hands, were the constant object of his care and consideration. Whatever projects have been brought to fruition during the regime of the present Board of Harbour Commissioners tending towards the amelioration of working conditions, or the added comfort of the employees, have been inaugurated and brought to completion by Mr. Daoust. Of these works, the most outstanding was the creation of the Harbour Hospital, where a medical officer is constantly in attendance for the relief of suffering and the treatment of employees injured in the course of their work on the Harbour.

The untimely death of this devoted servant of the Harbour has a special sadness, because it marks the first time in many years that a sitting Commissioner has been called by death from his duties. It is only two or three short years ago since a function took place on the Commissioners' Inspection Tug, the "Sir Hugh Allan," a luncheon, at which were present three complete boards of Harbour Commissioners. The successive administrations of Major Geo. Washington Stephens, of Mr. W. G. Ross, and the present Board were assembled together on that occasion, and this had a historic significance in the affairs of the Port, inasmuch as it brought together all the Harbour Commissioners which had functioned since the reorganization of the Harbour Board in 1907. The grim reaper has, however, made sad havoc in the ranks since that date, and successively Mr. L. E. Geoffrion, Brig.-General A. E. Labelle, and now Mr. Daoust have joined the ranks of all those keen Port builders whose names are revered memories.

GRAIN ELEVATOR SYSTEM

Since 1921 the Harbour of Montreal has held first place amongst seaports in the exporting of grain. So familiar has the world become with this condition, that in every country where men meet to buy and sell wheat or oats or barley, and

Photo by Fairchild Aerial Surveys

HARBOUR OF MONTREAL—OCEAN LINERS AND LAKE VESSELS AT THE ALEXANDRA AND KING EDWARD PIERS: GRAIN ELEVATOR NO. 1 IN BACKGROUND

when they talk of Montreal, as in the natural course of events they must do, there is added that descriptive phrase—"The Greatest Grain Shipping Harbour in the World."

Growth has been the outstanding feature of the export of grain from Montreal in those years. There have been two seasons, 1923 and 1926, when unusual conditions in other countries caused a dip in the upward curve of progress. But in the following seasons the ascending scale has been unfalteringly resumed, and as if interruption had never occurred, the figures compiled at the year's end have again and again registered growth. Moreover, the years referred to, when a slight falling-off in volume was experienced, have similarly adversely affected all competing ports on the Atlantic and Gulf coasts which are concerned in exporting this commodity.

But as regards export shipments of grain from Montreal, the season of 1927 stands in a class by itself. Total deliveries from the elevators in 1927 amounted to 195,247,914 bushels, which constitutes a new high figure for all time for any seaport in the world, even those harbours which are open for business twelve months in the year. The previous high figure was 166,000,000 bushels, so it is easy to see by what a notable percentage previous records have been surpassed.

In the realizing of this very satisfactory figure for total handlings, the following new marks were set by the grain elevator system of the Port during 1927:—

Largest total grain handlings ever achieved in a single year.
Largest exports of wheat in any year.
Greatest exports of American grain in any year.
Greatest volume of water-borne grain unloaded at the elevators.
Busiest grain shipping months in the history of the Port.
Greatest daily total receipts.
Greatest daily total deliveries.
Largest margin of supremacy over all competing ports.

Examination of the foregoing features of the year's grain handlings will give a fairly comprehensive idea of the more interesting aspects of the traffic.

Exports of Wheat

Wheat, because of its weight per bushel, and its importance in the grain-growing world, ranks as of major interest in any consideration of grain exports.

The following statement shows exports of Canadian wheat and American wheat, with the combined totals for the past few years:—

	Canadian Wheat bus.	American Wheat bus.	Total Wheat bus.
1923	64,131,724	25,434,339	89,566,063
1924	71,114,269	46,817,002	117,931,271
1925	64,770,611	19,130,201	83,900,812
1926	67,328,382	24,443,352	91,771,734
1927	72,978,666	46,134,760	119,113,426

American Grain

Exports of American grain in 1927 reached proportions greater than in any previous season of navigation, as may be seen from the tabulation of handlings in various years:—

1922	76,850,083 bushels
1923	33,704,531 "
1924	68,659,959 "
1925	51,890,226 "
1926	35,515,668 "
1927	92,681,463 "

This total of 92,681,463 bushels was made up as follows:—

Wheat	46,134,760 bushels
Rye	32,623,125 "
Barley	9,236,859 "
Oats	3,999,031 "
Corn	687,688 "

Water-borne Grain

One of the factors which contributes to the success of Montreal as a grain port is the system of canals which enable grain to be brought from the head of the lakes entirely by water, at rates with which railways cannot compete. Some years ago, the proportion of the total year's unloadings at the Montreal elevators which came down by boat and by rail was about equal. The railway companies made up their proportion in the rush season immediately following on the harvesting of the new crop in the Fall, as the available canal tonnage could not move all grain which offered. This tonnage has been added to in each year, and in 1927 there was a very large fleet of fine new vessels trading from Port Colborne and Buffalo to Montreal, and this resulted in an increase in the volume of water-borne grain.

	Number of Vessels	Bushels	Number of Cars	Bushels
1923.....	1,147	74,631,578	27,631	45,476,412
1924.....	1,606	112,020,615	28,276	53,118,784
1925.....	1,637	124,827,099	19,554	38,974,626
1926.....	1,471	104,674,724	16,684	31,223,158
1927.....	2,246	159,071,036	18,725	35,216,274

Record Grain Shipping Months

Curves which have been plotted of the grain movement out of Montreal over a period of years show great activity for the first month or two, when accumulated stocks of the previous Fall's crop move out rapidly, after which there is a lull until the American crop is harvested in August, and the most active period occurs in September, October and November, when the new Canadian crop comes in. A study of monthly shipments since 1923 reveals that only in one month in any of these years have deliveries amounted to more than 30,000,000 bushels, viz., in October, 1924; whereas in 1927, the months of May, September, October and November all passed the 30,000,000 bushel mark, and maintained daily shipments of more than 1,000,000 bushels a day.

Deliveries by Months, 1927

May	34,970,378 bushels
June	21,846,305 "
July	12,653,776 "
August	18,399,821 "
September	32,416,262 "
October	37,447,486 "
November	31,420,468 "

In this connection it is interesting to refer to the tabulation of shipments of grain from United States ports which is given hereunder, from which it will be seen that grain shipments from Montreal in any one of the months referred to above, viz., May, September, October or November, 1927, exceeded total shipments for the twelve months of 1927 from any United States port with the solitary exception of New York.

Record Daily Handlings

Many exceptional new records for daily receipts and deliveries were made in the season under review. The most notable day was June 1, 1927 when receipts amounted to 1,375,426 bushels, and deliveries to 2,845,421 bushels, or a total quantity of 4,220,847 bushels of grain handled in and out of the elevators in a single day. The following are some of the most satisfactory working days chosen at random from the season's statistics:—

1927	Receipts bus.	Deliveries bus.	Total Handlings bus.
May 31	1,586,320	1,478,966	3,056,286
June 1	1,375,426	2,845,421	4,220,847
Sept. 27	1,465,028	1,892,029	3,357,057
" 29	1,280,524	1,746,557	3,027,081
" 30	1,463,575	2,038,190	3,501,765
Oct. 1	1,283,544	2,127,310	3,410,854
" 14	1,336,600	1,772,881	3,109,481
" 16	1,484,485	1,888,072	3,372,557

1927	Receipts bus.	Deliveries bus.	Total Handlings bus.
Oct. 21	1,293,537	1,826,157	3,119,694
" 22	1,238,262	1,876,306	3,114,568
" 26	1,380,552	1,850,560	3,231,112
" 29	1,558,764	2,015,299	3,574,063
Nov. 6	1,588,764	1,790,648	3,379,412
" 9	1,494,793	1,581,390	3,076,183

Exports from United States Ports

Since 1921 the Harbour of Montreal has been at the head of the list of grain shipping ports, but in no year has the margin of supremacy over competing points of outlet been so great as in 1927. In other years, when Montreal experienced a good season, the other ports also has a satisfactory year, but during the present season, while Montreal experienced a record-breaking year, the shipments from United States Ports fell off to a marked extent. The following table shows that grain exports from Montreal amounted in the season of navigation to almost as much as the total combined exports from five of the leading United States ports for the year of 1927:—

	Canadian Grain bus.	Total Grain bus.
Montreal	98,597,442	195,247,914
New York	81,446,930	109,551,001
Galveston	.....	27,695,029
Baltimore	12,341,899	23,866,896
Philadelphia	15,574,113	21,680,801
New Orleans	.....	13,992,393

Of interest in the foregoing statement is the preponderance of Canadian grain in exports from United States Atlantic coast ports. Exports of American grain from New York, Baltimore and Philadelphia represent only 28% of the total grain exports from these ports for 1927.

The Interior of a Freight Shed in the Port

The physical handling of such a large quantity of grain, more than 5,000,000 tons, in the seven months during which the Harbour is open, which includes unloading from canal carriers and railway cars, weighing, distributing to bins, and delivering over the conveyor system to the ocean vessels, makes a severe demand on the efficiency of the machinery of the elevator system. Intense and painstaking work was required on the part of the men employed in the elevators, the superintendents of the elevators, the grain order and account clerks, the harbour masters, and others whose combined efforts made possible the achievement of such an impressive season's record, and the Commissioners consider it a gratifying tribute to the entire operating structure of the system that delays or breakdowns of any nature were unknown during the season.

At the end of the statistical tables of grain handling will be found an interesting tabulation of the points of destination of cargoes of grain which left Montreal in 1927. Eighteen different countries are included in this list, and it is of interest to note that while Great Britain was first in imports of wheat, with 35,285,317 bushels, Germany was the largest importer of all grains from Montreal, with 13,980,904 bushels of wheat, 13,057,541 bushels of barley, 19,281,639 bushels of rye, 2,148,717 bushels of oats and 26,457 bushels of buckwheat, a total of 48,495,258 bushels. Italy took 19,621,054 bushels of wheat; Holland is represented by 18,443,830 bushels of wheat, 8,172,708 bushels of rye, 5,105,624 bushels of barley, and 1,840,896 bushels of oats; Belgium imported 13,719,848 bushels of wheat and smaller quantities of other grains.

New Elevator Construction

Forming part of the programme of new work covered by the new loan of $12,000,000, authorization for which was granted by the Government early in 1927, is the extension of 3,000,000 bushels capacity to Grain Elevator No. 3. Construction of this important addition to the grain handling facilities of the Port was begun in the early summer of 1927, and was

carried on throughout the year. It is expected that this new storage annex will be ready to receive grain during 1928, and will materially add to the working capacity of the Port. The completion of this new house will increase the capacity of Elevator No. 3 to 5,000,000 bushels, and of the entire Port to 15,162,000 bushels.

Grain Elevator No. 3

SUMMARY OF GRAIN HANDLING

Grain Elevator No. 1—1927

	Receipts bus.	Deliveries bus.
January	.....	129,172
February	.....	119,032
March	.....	188,432
April	1,520,089	1,161,995
May	7,401,097	8,163,793
June	6,679,360	5,398,110
July	4,938,547	4,403,712
August	5,411,469	5,231,847
September	6,479,823	6,800,243
October	7,760,498	8,234,918
November	7,431,387	6,964,685
December	640,076	134,411
	48,262,346	46,930,350

Receipts		Deliveries	
Water	43,383,227 bus.	Conveyor	45,111,381 bus.
		Cars	1,263,495 "
Rail	4,879,119 "	Teams	555,364 "
		Bags	110 "
	48,262,346 "		46,930,350 "

First vessel unloaded April 26th, 1927.
Last vessel unloaded December 6th, 1927.

572 steamers 19 barges	591 vessels	—43,383,227 bus.
1,777 C.N.R.cars 809 C.P.R.cars	2,586 cars	— 4,879,119 "
		48,262,346 "

Receipts		Deliveries	
Can. Grain	31,326,128 bus.	Can. Grain	30,081,616 bus.
Amer. Grain	16,936,218 "	Amer. Grain	16,835,663 "
Arg. Grain	.....	Arg. Grain	13,071 "
	48,262,346 "		46,930,350 "

SUMMARY OF GRAIN HANDLING

Grain Elevator No. 2—1927

	Receipts bus.	Deliveries bus.
January	67,882	222,931
February	71,867	281,937
March	66,944	304,290
April	1,344,451	1,247,821
May	8,712,610	9,336,571
June	7,330,615	7,155,145
July	4,964,874	5,220,273
August	6,136,876	6,807,674
September	9,478,017	10,411,315
October	11,419,225	10,975,660
November	9,021,394	8,613,395
December	182,504	261,053
	58,797,259	60,838,065

Receipts			Deliveries		
Water	45,968,850	bus.	Conveyor	56,222,352	bus.
			Cars	2,495,179	"
Rail	12,828,409	"	Teams	773,568	"
			Bags	1,346,966	"
	58,797,259	"		60,838,065	"

First vessel unloaded April 26th, 1927.
Last vessel unloaded December 16th, 1927.

647 steamers 15 Barges	662 vessels	—45,968,850 bus.
2,295 C.N.R.cars 4,499 C.P.R.cars	6,794 cars	—12,828,409 "
		58,797,259 "

Receipts			Deliveries		
Can. Grain	27,942,470	bus.	Can. Grain	29,094,571	bus.
Amer. Grain	30,381,257	"	Amer. Grain	31,280,306	"
Arg. Grain	473,532	"	Arg. Grain	463,188	"
	58,797,259	"		60,838,065	"

SUMMARY OF GRAIN HANDLING

Grain Elevator No. 3—1927

	Receipts bus.	Deliveries bus.
January	.....	9,425
February	.....	15,466
March	.....	15,464
April	1,036,834	238,307
May	7,709,183	8,810,018
June	5,242,820	4,167,465
July	246,610	955,483
August	2,820,851	2,418,844
September	8,010,434	7,585,392
October	8,147,995	8,280,394
November	7,102,043	7,013,793
December	.....	232,085
	40,316,770	39,742,136

Receipts			Deliveries		
Water	33,069,130	bus.	Conveyor	38,085,257	bus.
			Cars	1,600,908	"
Rail	7,247,640	"	Teams	55,971	"
			Bags	.....	
	40,316,770	"		39,742,136	"

First Vessel unloaded April 26th, 1927.
Last vessel unloaded November 28th, 1927.

433 steamers 16 barges	449 vessels	—33,069,130 bus.
964 C.N.R. cars 2,724 C.P.R. cars	3,688 cars	— 7,247,640 "
		40,316,770 "

Receipts			Deliveries		
Can. Grain	15,886,174	bus.	Can. Grain	15,937,656	bus.
Amer. Grain	19,989,464	"	Amer. Grain	20,441,730	"
Arg. Grain	4,441,132	"	Arg. Grain	3,362,750	"
	40,316,770	"		39,742,136	"

SUMMARY OF GRAIN HANDLING

Grain Elevator "B"—1927

	Receipts bus.	Deliveries bus.
January	.....	94,040
February	6,807	116,311
March	.....	124,128
April	1,449,630	1,084,293
May	7,183,530	8,659,996
June	5,993,267	5,125,585
July	2,068,182	2,074,308
August	3,765,603	3,941,456
September	7,679,615	7,619,312
October	10,482,399	9,956,514
November	8,039,513	8,828,595
December	242,389	112,825
	46,910,935	47,737,363

Receipts		Deliveries	
Water	36,649,829 bus.	Conveyor	46,567,180 bus.
		Cars	747,727 "
Rail	10,261,106 "	Teams	422,456 "
		Bags	.....
	46,910,935 "		47,737,363 "

First vessel unloaded April 26th, 1927.
Last vessel unloaded December 6th, 1927.

516 steamers 28 barges	544 vessels	—36,649,829 bus.
5,657 C.N.R. cars	5,657 cars	—10,261,106 "
		46,910,935 "

Receipts		Deliveries	
Can. Grain	23,142,301 bus.	Can. Grain	23,483,599 bus.
Amer. Grain	23,768,634 "	Amer. Grain	24,123,764 "
Arg. Grain	.....	Arg. Grain	130,000 "
	46,910,935 "		47,737,363 "

SUMMARY OF GRAIN HANDLING

Grain Elevators 1, 2, 3 and "B"—1927

	Receipts bus.	Deliveries bus.
January	67,882	455,568
February	78,674	532,746
March	66,944	632,314
April	5,351,004	3,732,416
May	31,006,420	34,970,378
June	25,246,062	21,846,305
July	12,218,213	12,653,776
August	18,134,799	18,399,821
September	31,647,889	32,416,262
October	37,810,117	37,447,486
November	31,594,337	31,420,468
December	1,064,969	740,374
	194,287,310	195,247,914

Receipts		Deliveries	
Water	159,071,036 bus.	Conveyor	185,986,170 bus.
		Cars	6,107,309 "
Rail	35,216,274 "	Teams	1,807,359 "
		Bags	1,347,076 "
	194,287,310 "		195,247,914 "

First vessel unloaded April 26th, 1927.
Last vessel unloaded December 16th, 1927.

2,168 steamers 78 barges	2,246 vessels	159,071,036 bus.
10,693 C.N.R. cars 8,032 C.P.R. cars	18,725 cars	35,216,274 "
		194,287,310 "

Receipts		Deliveries	
Can. Grain	98,297,073 bus.	Can. Grain	98,597,442 bus.
Amer. Grain	91,075,573 "	Amer. Grain	92,681,463 "
Arg. Grain	4,914,664 "	Arg. Grain	3,969,009 "
	194,287,310 "		195,247,914 "

Stock in Elevators (at 31st December, 1927) 7,378,949 bus.

SUMMARY OF GRAIN HANDLING
ELEVATORS 1, 2, 3, and "B"—1927

Date	C.N.R. Cars	C.P.R. Cars	Total Cars	Vessels	Receipts bus.	Deliveries bus.
January	30	7	37	....	67,882	455,568
February	36	16	52	....	78,674	532,746
March	17	18	35	....	66,944	632,314
April	518	264	782	51	5,351,004	3,732,416
May	2,208	1,428	3,636	361	31,006,420	34,970,378
June	598	446	1,044	334	25,246,062	21,846,305
July	18	....	18	173	12,218,213	12,653,776
August	70	11	81	257	18,134,799	18,399,821
September	1,118	1,345	2,463	363	31,647,889	32,416,262
October	3,101	2,167	5,268	398	37,810,117	37,447,486
November	2,942	2,320	5,262	295	31,594,337	31,420,468
December	37	10	47	14	1,064,969	740,374
	10,693	8,032	18,725	2,246	194,287,310	195,247,914

SUMMARY OF GRAIN HANDLING
ELEVATORS 1, 2, 3, and "B"—Receipts—1927

Date	Canadian Grain bus.	American Grain bus.	Argentine Grain bus.	Total bus.
January	62,796	5,086	.....	67,882
February	65,236	13,438	.....	78,674
March	58,390	8,554	.....	66,944
April	4,028,579	1,322,425	.....	5,351,004
May	17,812,848	13,193,572	.....	31,006,420
June	13,932,971	11,028,117	284,974	25,246,062
July	8,037,854	4,080,254	100,105	12,218,213
August	8,947,544	7,972,074	1,215,181	18,134,799
September	10,936,081	19,366,998	1,344,810	31,647,889
October	14,070,518	22,859,650	879,949	37,810,117
November	19,312,830	11,191,862	1,089,645	31,594,337
December	1,031,426	33,543	.....	1,064,969
	98,297,073	91,075,573	4,914,664	194,287,310

SUMMARY OF GRAIN HANDLING
ELEVATORS 1, 2, 3, and "B"—Deliveries—1927

Date	Canadian Grain bus.	American Grain bus.	Argentine Grain bus.	Total bus.
January	294,370	121,995	39,203	455,568
February	417,809	96,571	18,366	532,746
March	570,703	47,697	13,914	632,314
April	2,517,250	1,198,217	16,949	3,732,416
May	21,310,883	13,639,795	19,700	34,970,378
June	12,383,454	9,218,181	244,670	21,846,305
July	7,338,129	5,125,277	190,370	12,653,776
August	10,842,990	6,703,946	852,885	18,399,821
September	12,422,217	19,012,064	981,981	32,416,262
October	13,379,081	23,333,427	734,978	37,447,486
November	16,739,800	14,149,118	531,550	31,420,468
December	380,756	35,175	324,443	740,374
	98,597,442	92,681,463	3,969,009	195,247,914

SUMMARY OF GRAIN RECEIPTS, ELEVATORS 1, 2, 3, & B—1927

	WHEAT	OATS	BARLEY	CORN	RYE	FLAX	OTHER	TOTAL bushels
Jany.	1,128	60,257	.....	5,086	.....	.....	1,411	67,882
Feby.	27,624	35,074	2,538	6,631	6,807	.....	.....	78,674
March	13,322	41,393	.....	8,554	.....	.....	3,675	66,944
April	4,065,671	92,501	291,143	40,710	860,979	.....	.....	5,351,004
May	15,396,292	3,569,685	3,878,028	309,666	7,762,655	89,041	1,053	31,006,420
June	13,647,717	3,038,584	2,090,812	314,594	6,092,874	59,985	1,496	25,246,062
July	10,038,353	592,269	444,834	100,105	980,750	61,902	.....	12,218,213
August	13,311,218	563,308	2,171,056	1,215,181	853,821	20,215	.....	18,134,799
Sept	18,913,313	873,497	2,867,765	1,344,810	7,504,181	144,323	.....	31,647,889
Oct.	22,928,074	389,140	7,118,591	879,949	6,275,714	204,690	13,959	37,810,117
Nov.	22,713,750	592,798	3,159,542	1,142,509	3,731,462	230,122	24,154	31,594,337
Dec.	429,880	579,167	3,744	.....	13,323	37,676	1,179	1,064,969
	121,486,342	10,427,673	22,028,053	5,367,795	34,082,566	847,954	46,927	194,287,310

	WHEAT		OATS		BARLEY		CORN		RYE		FLAX	OTHER	TOTAL
	Can.	Amer.	Can.	Amer.	Can.	Amer.	Arg.	Amer.	Can.	Amer.	Can.	Can.	Bushels
Jany.	1,128	.....	60,257	.....	.....	.....	.....	5,086	.....	.....	.....	1,411	67,882
Feby.	27,624	.....	35,074	.....	2,538	.....	.....	6,631	.....	6,807	.....	.....	78,674
March	13,322	.....	41,393	.....	.....	.....	.....	8,554	.....	.....	.....	3,675	66,944
April	3,585,161	480,510	92,501	.....	291,143	.....	.....	40,710	59,774	801,205	.....	.....	5,351,004
May	11,429,380	3,966,912	1,917,332	1,652,353	3,878,028	.....	.....	309,666	498,014	7,264,641	89,041	1,053	31,006,420
June	10,351,725	3,295,992	1,243,571	1,795,013	2,077,362	13,450	284,974	29,620	198,832	5,894,042	59,985	1,496	25,246,062
July	7,162,265	2,876,088	418,637	173,632	395,050	49,784	100,105	.....	.....	980,750	61,902	.....	12,218,213
Aug.	6,283,560	7,027,658	398,039	165,269	1,943,426	227,630	1,215,181	.....	302,304	551,517	20,215	.....	18,134,799
Sept.	8,463,620	10,449,693	823,817	49,680	666,235	2,201,530	1,344,810	.....	838,086	6,666,095	144,323	.....	31,647,889
Oct.	11,033,558	11,894,516	235,171	153,969	2,274,780	4,843,811	879,949	.....	308,360	5,967,354	204,690	13,959	37,810,117
Nov.	16,625,753	6,087,997	579,179	13,619	1,349,676	1,809,866	1,089,645	52,864	503,946	3,227,516	230,122	24,154	31,594,337
Dec.	411,904	17,976	579,167	.....	1,500	2,244	.....	.....	.....	13,323	37,676	1,179	1,064,969
	75,389,000	46,097,342	6,424,138	4,003,535	12,879,738	9,148,315	4,914,664	453,131	2,709,316	31,373,250	847,954	46,927	194,287,310

SUMMARY OF GRAIN DELIVERIES, ELEVATORS 1, 2, 3, & B—1927

	WHEAT	OATS	BARLEY	CORN	RYE	FLAX	OTHER	TOTAL Bushels
Jany	32,656	197,100	138,449	75,292	9,308	.....	2,763	455,568
Feby	96,283	291,656	49,833	82,396	12,578	.....	.....	532,746
March	42,102	456,551	46,965	61,564	23,847	.....	1,285	632 314
April	1,591,492	775,699	211.290	89,772	1,062,893	.....	1,270	3,732,416
May	17,741,167	3,328,592	4.509,955	262,903	9,038,626	89,041	94	34,970 378
June	12,023,065	2,689,383	2,144,314	308,976	4,678,571	.....	1,996	21,846 305
July	8,243,176	1,204,004	926,957	259,745	1,896,430	121,887	1,577	12,653,776
August	13,317,359	775,789	2,278,126	916,044	1.092,288	20,215	.....	18.399,821
Sept	20,868,198	1,136,434	2,091,096	984,452	7,247,404	88,678	.....	32,416 262
Oct	22,617,640	630,553	7.359,034	738,015	5,925,452	175,245	1,547	37,447,486
Nov	22,448,554	457,454	3,369,541	536,716	4,431,367	146,831	30,005	31,420,468
Dec	91,734	172,956	13,294	340,822	46,938	72,662	1,968	740,374
	119,113,426	12,116,171	23,138,854	4,656,697	35,465,702	714,559	42,505	195,247,914

	WHEAT		OATS		BARLEY		CORN		RYE		FLAX	OTHER	TOTAL
	Can.	Amer.	Can.	Amer.	Can.	Amer.	Arg.	Amer.	Can.	Amer.	Can.	Can.	Bushels
Jany	15,400	17,256	194,758	2,342	72,141	66,308	39,203	36,089	9,308	.....	.....	2,763	455,568
Feby	63.742	32,541	291,656	.....	49,833	.....	18,366	64,030	12,578	.....	.....	.....	532,746
March	42,055	47	456,551	.....	46,965	.....	13,914	47,650	23,847	.....	.....	1,285	632,314
April	1,388,492	203,000	775,699	.....	211,290	.....	16,949	72,823	140,499	922,394	.....	1,270	3,732,416
May	14,211,666	3,529,501	1,980,263	1,348,329	4,452,011	57,944	19,700	243,203	577,808	8,460,818	89,041	94	34,970,378
June	8,646.042	3,377,023	1,341,719	1,347,664	2,144,314	.....	244,670	64,306	249,383	4,429,188	.....	1,996	21,846,305
July	5,571,727	2,671,449	680,648	523,356	924,307	2,650	190,370	69,375	37,983	1,858,447	121,887	1,577	12,653,776
Aug	8,101,236	5,216,123	517,622	258,167	2,062,270	215,856	852,885	63,159	141,647	950,641	20,215	.....	18,399,821
Sept	9,953,100	10,915,098	882,809	253,625	667,048	1,424,048	981,981	2,471	830,582	6,416,822	88,678	.....	32,416,262
Oct	10,692,732	11,924,908	385,276	245,277	1,751,396	5,607,638	734,978	3,037	372,885	5,552,567	175,245	1,547	37,447,486
Nov	14,209,923	8,238,631	437,183	20,271	1,515,140	1,854,401	531,550	5,166	400,718	4,030,649	146,831	30,005	31,420,468
Dec	82,551	9,183	172,956	.....	5,280	8,014	324,443	16,379	45,339	1,599	72,662	1,968	740,374
	72,978,666	46,134,760	8,117,140	3,999,031	13,901,995	9,236,859	3,969,069	687,688	2,842,577	32,623,125	714,559	42,505	195,247,914

DIRECT TO VESSEL STATEMENT OF BULK GRAIN EXPORTED—1927

Country	Wheat	Barley	Rye	Oats Canadian	Oats American	Buckwheat	Corn
Algeria	254,279	.....	.....	.....	.....	.....	.....
Belgium	13,719,848	1,586,438	1,223,854	703,303	946,123	.....	.....
Denmark	750,848	289,904	1,621,176	.....	.....	.....	137,143
Finland	.....	.....	144,000	.....	.....	.....	.....
France	3,445,265	.....	88,426	209,982	265,922	.....	.....
Germany	13,980,904	13,057,541	19,281,639	406,834	1,741,883	26,457	.....
Great Britain	35,285,317	1,686,617	325,488	1,498,370	10,000	.....	.....
Greece	3,365,816	.....	.....	.....	.....	.....	.....
Holland	18,443,830	5,105,624	8,172,708	614,187	1,226,709	..	.....
Ireland	837,005	241,676	.....	.....	12,500	.....	.....
Italy	19,621,054	.....	.....	.....	.....	.....	.....
Jugo Slavia	.....	338,875	.....	.....	49,000	.....	.....
Malta	112,000	.....	.....	.....	.....	.....	.....
Norway	926,922	390,404	3,047,047	58,704	.....	.....	.....
Portugal	1,414,208	.....	.....	.....	.....	.....	.....
Sweden	1,405,714	.....	696,585	.....	.....	.....	.....
Tunis	100,000	.....	.....	.....	.....	.....	.....
Union S. Africa	356,274	.....	.....	.....	.....	.....	.....
Unknown	4,208,416	50,000	481,004	.....	.....	.....	...
Total (bushels)	118,227,726	22,747,079	35,081,927	3,491,380	4,252,137	26,457	137,143

Ocean Liners at their Berths

FINANCIAL STATEMENT

HARBOUR COMMISSIONERS OF MONTREAL

The Statement of Income and Expenditure for the Year ended 31st December, 1927, exhibits fully the Financial Transactions of the Board for the Period. The same under Certificate of the Comptroller and the General Manager and Secretary, verified by the Auditors, follows herewith

ITEMS	TOTALS	GRAND TOTALS
INCOME ON REVENUE ACCOUNT		
Grain Elevator System	$2,71[illegible]	
Railway Traffic Department	4[illegible]	
Storage Warehouse	239,748.85	
From Harbour Equipment		
Rental of Sheds, Hoists, etc	324,235 49	
Wharfage Rates	1,273,901 [illegible]	
Rental of Harbour Spaces, etc	221,172 06	
Sundry Receipts on Revenue Account	187,273.28	
Discounts and Interest	13,343 20	
Total Income on Revenue Account		$5,453,951 56
RECEIPTS ON CAPITAL ACCOUNT		
Dominion Government Advances on Loan		
Under Act 13-14, George V, Chap. 59	$ 375,000 00	
Under Act 17, George V, Chap. 8	1,460,000 00	
Total Advances on Loans in 1927		$1,835,000 00
Grand Total Receipts 1927		7,288,951 56
Outstanding Accounts at 31st December, 1927	577,970 65	
Interest Accrued on Government Debentures, July 1st, 1927, to December 31st, 1927	958,741 26	
Sinking Fund Reserve Account:		
Account at December 31st, 192[illegible] $1,514,230.00		
Add: Reserve from Revenue 1927 468,750.00		
[illegible]		
Less: Debenture Series "M"—		
Paid to Government, 1927 1,000,000.00		
Balance to Credit of Fund at 31st December, 1927	982,980 00	
Total Outstanding at 31st December, 1927	2,519,6[illegible]	
Total Outstanding at 31st December, 1926	3,140,[illegible] 42	
Balance of Outstanding, to deduct		621,233 51
		$6,[illegible] 05

ITEMS	TOTALS		GRAND TOTALS
EXPENDITURE ON REVENUE ACCOUNT			
Grain Elevator System, Operation and Maintenance	$[illegible]		
Railway Traffic, Operation and Maintenance	[illegible] 01		
Storage Warehouse, Operation and Maintenance	2[illegible]		
Harbour Equipment, Operation and Maintenance	162,256 48		
(The above do not include Interest, Sinking Fund, Depreciation, Administration, etc.)			
Miscellaneous and General Expenses	456,412 66		
Police Service on Wharves	76,189 93		
Sundry [illegible] Revenue Account	241,877 11		
Total Operation and Maintenance		$2,[illegible]	
Interest on Government Debentures, 1927	1,916,[illegible] 44		
Interest on Bank Overdrafts	[illegible]		
Sinking Fund Reserve for Retirement of Debentures	468,750 00		
		2,385,270 10	
Total Expenditure on Revenue Account			$[illegible]
EXPENDITURE ON CAPITAL ACCOUNT			
Wharves, Piers and Basins:			
[illegible]	[illegible]		
[illegible]	[illegible]		
[illegible] Wharves, Sections 30 to 35	128,846 31		
High Level Shore Wharves, Sections 38 to 42	6,773 92		
[illegible]	[illegible]		
Reconstruction [illegible] Wharf	[illegible]		
Frontenac Oil Wharf, Section 99	42,263 52		
New Piers and Wharves, Sections [illegible] to 50	[illegible]		
Paving Ramp [illegible]	[illegible]		
Paving [illegible] Basin	12,551 [illegible]		
Paving Victoria Ramp to Warehouse	[illegible]		
New Slips, Market Basin	[illegible]		
Windmill Point Embankment, Filling	4,530 79		
[illegible] Filling	[illegible]		
King Edward Pier Extension, Filling	1,459 46		
Harbour Boundaries & Survey	1,321 65		
Water Pipes and Drains, General	[illegible]		
Total—Wharves, Piers and Basins		[illegible]	
Grain Elevator System:			
Elevator No. 3 Extension	381,911.25		
Elevator "B" Extension and Ventilation	19,0[illegible]		
Elevator No. 1 Sub-Station, Shed 11	10,676 00		
Elevator No. 1 Car Unloaders and [illegible]	[illegible]		
Elevator No. 1 Ventilation	1,[illegible]		
Elevator No. 1 [illegible]	1,310 72		
Elevator No. 2 Ventilation	1,798 47		
Elevator No. 2, Car Unloaders, Balance	[illegible]		
Elevator No. 3, Electric Extension	[illegible]		
Total Grain Elevator System		[illegible]	
Plant, Shops and Buildings:—			
[illegible]	[illegible]		
[illegible]	[illegible] 50		
New Land Cranes	[illegible]		
Dump Scows, Reconstruction	[illegible]		
New [illegible] Scow	[illegible]		
New Scow, No. 22	11,278 [illegible]		
Electric Equipment, Harbour Yard Shops	11,605 69		
Electric Equipment, Machine Shop	3,323 15		
Total—Plant, Shops and Buildings		[illegible]	
Railways and Electrification:—			
Electrification of Railways	18,411 82		
Power House Equipment	[illegible]		
[illegible]	14,19[illegible]		
Double Track, [illegible]	[illegible]		
Railway Tracks, Sections 30 to 35	15,329 65		
High Level Railway, Sections [illegible] and 40 (Widening)	12,721 52		
[illegible] Pier, etc	2,064 79		
Total Railways and Electrification		[illegible]	
Harbour Dredging and Filling:			
Channel, Dry-Dock to Racine Pier	31,200 00		
[illegible] Filling	15,5[illegible]		
Total Harbour Dredging and Filling		46,740 00	
Real Estate			
Sundry Suspense Accounts, Hochelaga Property	13,840 81		
Total Real Estate		13,840 81	
Storage Warehouse:			
Additional Refrigerated Space	4,161 75		
Total Storage Warehouse		4,161 75	
Electric [illegible] Line Sec. 12 to 19 and Station No 7	3,298 09		
Total—Transmission Lines		3,298.09	
[illegible] Shed			
New Shed, Alexandra Pier	5,741 56		
Less Shed and Sawmill, [illegible]	[illegible]		
Total [illegible]		[illegible]	
Grand Total Capital Expenditure for Year 1927			[illegible]
Grand Total Expenditure for Year 1927			[illegible]
[illegible]			
[illegible]	[illegible]		
Materials in Stock	334,969 18		
[illegible] 1928	118,759 06		
[illegible]	[illegible]		
	1,[illegible]		
Less:			
Bank Overdraft at 31st December, 192[illegible]	[illegible]		
Total Balance at 31st December, 192[illegible]		[illegible]	
[illegible]		[illegible]	
Difference in Balance, to [illegible]			[illegible]
			[illegible]

Certified:
[illegible] Comptroller.
Montreal, March [illegible], 1928.

Verified:
[illegible]
Auditors.

Certified:
[illegible]
General Manager and Secretary.

SHIPPING

From the point of view of Shipping, the season of navigation under review was splendidly satisfactory. A greater number of ocean ships came to the Port than in any previous year, and the aggregate net registered tonnage also reached a new high mark. Complete details of this increase, and of the dates of opening and closing of navigation, will be found in the statistical tables which follow. In the latter connection, it may be pointed out that navigation opened earlier than usual, and the River St. Lawrence remained clear of ice so long in the Fall that for the first time in many years the close of navigation of 1927 is really shown to have been early in 1928.

Many interesting developments occurred during 1927 in the shipping world. Practically all of the larger Steamship Companies trading to Montreal either launched new tonnage for the St. Lawrence service, or made arrangements for the construction of new vessels. As the years elapse, the gross tonnage of passenger vessels which sail from Montreal is growing, and in 1927 vessels of 19,000 gross tons came regularly to Montreal.

An important shipping transaction which took place during the season was the purchase of the White Star Line by the Royal Mail Steamships Ltd., thus bringing this old established shipping company back under British control.

Vessels flying the flags of almost all maritime nations came to the Port in 1927, as the following list shows:—

	Ships	Net Regd. Tonnage
British	1,052	3,610,899
Norwegian	157	305,912
Italian	111	384,230
American	110	243,192
Dutch	72	182,277
Danish	39	64,748
Greek	19	52,851
French	16	41,617

	Ships	Net Regd. Tonnage
Spanish	9	30,826
Jugo Slav	6	21,343
German	5	13,746
Swedish	5	7,287
Japanese	4	18,139
Mexican	2	6,473
Belgian	1	3,071
Portuguese	1	2,986
Finnish	1	2,889
	1,610	4,992,486

The Port of Montreal is justifiably a popular point of call with shipowners. There are many reasons for this, but all of these reasons have some relation to the important factor of cost. There are direct and indirect costs in the shipping business. The indirect expense may be caused by delays in loading, or manifold moves which may have to be made before the vessel has completed her loading. Montreal ranks very highly under this head. Delays to ships are practically unknown in the Port of Montreal. Vessels under heavy demurrage rarely have to submit to any penalty outlay, and in the majority of cases, loading of the entire cargo is completed at the same wharf, whether that cargo be grain or general merchandise, or both.

Under the heading of direct costs, the Harbour of Montreal stands, if anything, even more favourably. There are no tonnage or dockage dues levied by the Port authority, and charges for all essential ship services are not exorbitant. To demonstrate this, the Commissioners publish hereunder a statement of the charges incurred by a vessel which loaded a full cargo of wheat (5,560 tons) at Freemantle, Australia:—

	£	s.	d.
Port and other charges	501	4	5
Fumigation	16	2	2
Loading and stowing cargo	624	12	10

LOOKING WEST FROM THE TOP OF THE NEW BRIDGE

	£	s.	d.
Stevedore's overtime and waiting time	320	15	6
Harbour Trust overtime and waiting time	149	19	5
Engine hire overtime and waiting time	35	1	3
Ship's tally clerks	93	18	0
Shore tally clerks, overtime	44	10	0
Dunnage, etc	170	0	0
Gantry hire	125	10	3
Hire of lights	28	10	0
Total	£2,110	3	10
Equal to	$10,254.61		

An estimate of the charges which would be incurred by a vessel loading a similar cargo from Montreal is as follows:—

Elevator delivery charges	$ 741.33
Stevedoring charges:	
Fitting out	1,008.00
Building feeders	84.00
Trimming grain	186.00
Bagging, filling and stowing 6,000 bags	900.00
Fumigation	100.00
Separation cloths	90.00
Outward pilotage	200.00
Harbour pilotage	20.00
Towing	50.00
Hospital dues (payable only 3 times a year)	42.00
Agency fee	150.00
Small miscellaneous fees	12.00
	$ 3,583.33

HARBOUR OF MONTREAL

Statement showing the Nationalities and Net Tonnage of Sea-going Vessels that arrived in the Port of Montreal during the Season of 1927, which were navigated by 93,170 seamen.

Nationality	Number of Vessels	Tonnage
British	1,052	3,610,899
Norwegian	157	305,912
Italian	111	384,230
American	110	243,192
Dutch	72	182,277
Danish	39	64,748
Greek	19	52,851
French	16	41,617
Spanish	9	30,826
Jugo-Slav	6	21,343
German	5	13,746
Swedish	5	7,287
Japanese	4	18,139
Mexican	2	6,473
Belgian	1	3,071
Portuguese	1	2,986
Finnish	1	2,889
Total	1,610	4,992,486

Of the above 1,590 ships were built of iron or steel with a net registered tonnage of 4,990,292 and 20 were built of wood with a net registered tonnage of 2,194.

HARBOUR OF MONTREAL

Statement showing the classification of Trans-Atlantic Vessels that arrived in the Port of Montreal during the past ten years.

Year	Steamships		Ships and Brigs		Schooners		Grand Total	
	No.	Tonnage	No.	Tonnage	No.	Tonnage	No.	Tonnage
1918	644	1,910,621	..	....	..	....	644	1,910,621
1919	702	2,041,638	..	....	..	....	702	2,041,638
1920	637	2,018,861	1	1,658	..	....	638	2,020,519
1921	807	2,598,494	..	....	..	....	807	2,598,494
1922	968	3,451,703	..	....	1	1,356	969	3,453,059
1923	892	3,221,781	..	....	..	....	892	3,221,781
1924	987	3,597,031	..	....	1	116	988	3,597,147
1925	1,040	4,744,793	..	....	..	....	1,040	4,744,793
1926	1,042	3,551,489	..	....	..	....	1,042	3,551,489
1927	1,231	4,252,325	..	....	..	....	1,231	4,252,325

HARBOUR OF MONTREAL

Statement showing the classification of Vessels that arrived in Port for the past ten years from the Lower St. Lawrence and Maritime Provinces and Newfoundland

Year	Steamships		Schooners		Grand Total	
	No.	Tonnage	No.	Tonnage	No.	Tonnage
1918	18	20,589	12	2,272	30	22,861
1919	62	134,971	22	2,671	84	147,642
1920	19	10,724	6	486	25	11,210
1921	151	292,870	6	592	157	293,462
1922	223	479,333	2	245	225	479,578
1923	187	461,645	3	294	190	461,939
1924	231	498,903	4	282	235	499,185
1925	215	359,520	..	..	215	359,520
1926	379	670,241	..	..	379	670,241
1927	379	740,161	..	..	379	740,161

HARBOUR OF MONTREAL

Combined Statement Showing the Number and Tonnage of all Vessels that Arrived in Port During the past Ten Years.

Year	TRANS-ATLANTIC		MARITIME PROVINCES AND NEWFOUNDLAND		INLAND		GRAND TOTAL	
	Vessels	Tonnage	Vessels	Tonnage	Vessels	Tonnage	Vessels	Tonnage
1918	644	1,910,621	30	22,611	6,102	3,313,908	6,776	5,247,390
1919	702	2,041,638	84	137,642	7,499	4,357,734	8,280	6,537,014
1920	638	2,020,519	25	11,210	4,403	4,287,714	5,066	6,319,443
1921	807	2,598,494	157	293,462	4,577	6,843,494	5,541	9,735,450
1922	969	3,453,059	225	479,578	5,789	9,157,062	6,983	13,089,699
1923	892	3,221,781	190	461,939	5,609	8,195,308	6,691	11,879,028
1924	988	3,597,147	235	499,185	5,791	11,215,764	7,014	15,312,096
1925	1,040	4,744,793	215	359,520	5,957	9,678,163	7,212	14,782,476
1926	1,042	3,551,489	379	670,241	6,197	12,445,594	7,618	16,667,324
1927	1,231	4,252,325	379	740,161	6,188	12,375,564	7,798	17,322,444

HARBOUR OF MONTREAL

Statement showing the dates of the Opening and Closing of Navigation, the First Arrival and the Last Departure for Sea; also the greatest Number of Vessels in the Port at one time, during the past ten years.

Year	Opening of Navigation	Closing of Navigation	First Arrival from Sea	Last Departure for Sea	Greatest number of Vessels in Port at one time			
					Seagoing		Inland	
					No.	Date	No.	Date
1918.....	April 21st	Dec. 17th	May 7th	Dec. 14th	46	Nov. 7th	50	Oct. 10th
1919.....	" 14th	" 12th	April 22nd	" 10th	35	June 12th	54	Aug. 24th
1920	" 18th	" 11th	" 25th	" 11th	43	Aug. 18th	43	Sept. 14th
1921.....	March 29th	" 14th	" 21st	" 8th	78	Sept. 7th	43	July 16th
1922.....	April 13th	" 6th	" 24th	" 2nd	91	Oct. 24th	55	Aug. 21st
1923.....	" 29th	" 18th	May 3rd	" 1st	63	May 23rd	52	" 4th
1924.....	" 18th	" 12th	April 24th	" 3rd	80	Nov. 4th	43	June 17th
1925.....	" 10th	" 10th	,, 16th	" 8th	62	Aug. 19th	46	Oct. 6th
1926.....	May 2nd	" 6th	May 3rd	" 6th	60	May 19th	66	Sept. 7th
1927.....	April 10th	Jan. 4/28	April 12th	" 6th	80	Oct. 20th	44	May 1st

COMMODITY TONNAGE STATEMENT

The following statements of tonnages of merchandise which passed inwards and outwards over the wharves of the Port of Montreal in 1927 show the tremendous strides which were made in this season of navigation. The total tonnages are classified as follows:

Import tonnage
Export tonnage
Domestic tonnage

All three classifications record increases over previous years, and the total increase is indeed a remarkable one. In 1927 the total tonnage of all commodities handled through the Port amounted to 11,921,173 tons, as compared with 9,210,699 tons in 1926.

The export of grain and the import of coal represent a large proportion of this increase, but a study of the various items in the attached lists will show that many other important commodities helped to swell the impressive total of increases.

The tabulation of tonnages is represented in the new form which was presented in last year's Annual Report. Imports come first, and the distribution of each commodity after import is clearly shown, according as the goods moved away from the Harbour by rail or lake vessel or by other modes of transportation. The exports follow, and the totals are divided according to whether they were carried from the point of inland origin, prior to export, by rail or water.

IMPORTS

GOODS	Total	Distribution after Import			
		RAIL			
	Tons	Can.	U.S.	Vessel	Other
Acids, various	**616**	8	13	155	440
Advertising Matter	**113**	38	....	7	68
Aeroplanes and parts	**282**	86	....	....	196
Agricultural Implements	**15**	7	....	....	8
Alcohol	**5**	....	....	....	5
Alum	**456**	115	....	104	237
Alumina Sulphate	**271**	80	....	83	108
Alumino Ferric	**783**	....	....	....	783

GOODS	Total Tons	Distribution after Import: RAIL Can.	RAIL U.S.	Vessel	Other
Aluminum Foil	122	43		35	44
" Ingots	22	17		5	
" Powder	6				
" Rods	62	62			
" Scrap	11	11			
" Sheets	141	96		35	10
" Strips	22			22	
" Ware	84	14	45	22	3
" Wire	9	9			
Ammonia	307	197		29	81
" Carbonate	9				9
" Muriate	202			44	158
" Nitrate	1,854	285			1,569
Ammunition	24	23			1
Anchors	163	11		9	143
Animal Foods	76	59		10	7
Antimony	33	3			30
Anvils	22		22		
Arrowroot	42	39			3
Artists' Materials	59	43		5	11
Asbestos, Mfrs. of	227	2	1	4	220
Asphalt	308	31			277
Automobiles	1,162	370	12		780
Automobile parts	393	269	2		122
Babbitt	1	1			
Baby Carriages	53	19		19	15
Bags and Bagging, Jute	954	88		64	802
Barley, Pot	6	6			
Barrels, etc., empty	2,472	389	23	5	2,055
Barytes	1,174	40		62	1,072
Basic Slag	156				156
Basket Ware	720	205	264	86	165
Bath Brick	15	1		3	11
Baths	12	6			6
Batteries	15	12			3
Battery Plates	1,037	14		1,023	
Beads, Glass	130	19	101	2	8
Beans, Common	5,113	36	4	10	5,063
Beds and Bedding	3	2		1	
Beers	1,235	264		813	158
Bees Wax	4				4
Bells	169	160	1		8
Belting	48	17		1	30

GOODS	Total Tons	Distribution after Import RAIL Can.	U.S.	Vessel	Other
Bicycles and Parts	**509**	446	1	20	42
Bird Seed	**41**	18	1	13	9
Biscuits	**354**	158	13	33	150
Biscuits, Dog	**300**	50	....	181	69
Black Lead	**36**	....	....	....	36
Blanc Fixe	**223**	48	....	8	167
Bleaching Powders	**325**	105	....	25	195
Boats	**16**	3	....	....	13
Boiler Compound	**40**	7	....	3	30
" Lagging	**58**	....	....	....	58
" Parts	**171**	9	....	....	162
Bone Ash	**15**	12	....	....	3
" Black	**46**	....	....	....	46
" Dust	**111**	....	....	....	111
Books	**2,445**	574	28	1,142	701
Boots and Shoes	**1,441**	740	47	173	481
Bottles, empty, Common	**1,232**	71	1	862	298
" " Superior	**15**	....	....	....	15
" Thermos	**687**	396	....	98	193
Boxes, empty	**54**	26	8	20	.....
" Paper	**5**	1	....	....	4
Brass, Mfrs. of	**276**	75	42	9	150
" Rods	**95**	2	.....	.....	93
" Scrap	**88**	.....	.....	.....	88
" Sheets	**17**	.....	.....	.....	17
" Tubing	**262**	147	3	.....	112
" Wire	**55**	55	.....	.....	.....
Brattice Cloth	**23**	3	.....	.....	20
Bread	**18**	.....	10	3	5
Brick, Fire	**9,335**	2,045	.....	.....	7,290
" Glazed	**332**	309	.....	.....	23
" Paving	**59**	.....	.....	.....	59
" Rubble	**11**	11	.....	.....	.....
Bristles	**9**	1	....	....	8
Bristol Board	**7**	....	....	....	7
Bronze Ingots	**12**	12	....	....	.....
" Powder	**50**	8	....	1	41
" Wire	**25**	....	....	15	10
" Mfrs. of	**22**	....	....	....	22
Brooms and Brushes	**88**	46	1	7	34
Burlaps	**1,243**	505	160	120	458
Butter	**136**	33	....	....	103
Buttons	**86**	31	....	1	54

GOODS	Total Tons	Distribution after Import			
		RAIL			
		Can.	U.S.	Vessel	Other
Candles	**75**	7	20	17	31
Canned Goods, N.O.S.	**152**	21	17	63	51
Canvas	**2**	2	....	....	.....
Canvas Hose	**33**	1	....	....	32
Capsules	**293**	152	....	13	128
Carbide, Calcium	**13**	13	....	....	.....
Cardboard	**207**	133	6	9	59
Cars, Dump	**61**	61	....	....	.....
Carpets	**2,194**	777	340	241	836
Carpet Waste	**43**	43	....	....	.....
Casein	**22**	22	....	....	.....
Casings, Sausage	**65**	10	7	1	47
Castings	**314**	234	1	3	76
Caustic Soda	**503**	....	....	4	499
Celluloid	**90**	58	....	1	31
Celluloid, Mfrs. of	**235**	120	....	72	43
Cement	**181**	....	....	....	181
Chains	**889**	109	10	62	708
Chalk	**319**	69	1	....	249
Chalk, Precipitate	**70**	8	....	10	52
Cheese	**219**	71	83	34	31
Cheese Coloring	**11**	....	....	....	11
Chemicals	**6,293**	1,364	85	577	4,267
Chicory	**18**	2	....	3	13
Chinaware	**6,770**	2,328	1,189	627	2,626
Chloride, Barium	**35**	....	....	....	35
" Calcium	**854**	1	....	....	853
Church Ornaments	**197**	68	1	12	116
Cigars and Cigarettes	76	33	....	9	34
Clay, Burnt	**128**	....	....	....	128
" China	**2,673**	84	....	....	2,589
" Fire	**263**	112	....	11	140
" Mfrs. of	**476**	444	....	32	.....
Clocks	**1,756**	574	122	84	976
Clothes Pins	**21**	14	....	1	6
Coal, Anthracite	**696,609**	....	....	....	696,609
" Bituminous	**151,053**	....	....	....	151,053
Cocoa	**296**	38	....	236	22
Cocoa Beans	**3,147**	197	....	149	2,801
Cocoa Butter	**1,489**	120	....	1,072	297
Coconuts	**2,129**	294	....	260	1,575
Coffee	**1,707**	280	....	422	1,005
Coffee Essence	**63**	3	....	51	9

GOODS	Total Tons	Distribution after Import			
		RAIL			
		Can.	U.S.	Vessel	Other
Coke	**6,908**	....	....	....	6,908
Confectionery	**1,639**	647	19	579	394
Copperas	**17**	....	....	....	17
Copper, Mfrs. of	**17**	8	....	1	8
" Ore	**114**	114	....	....	.....
" Rods	**51**	51	....	....	.....
" Rollers	**31**	28	....	....	3
" Scrap	**6**	....	....	....	6
" Sheets	**35**	2	....	....	33
" Tubes	**69**	27	....	4	38
" Wire	**4**	....	4	....	.....
Cordage	**184**	1	....	....	183
Corks	**64**	10	....	23	31
Corkwood	**1,723**	....	....	46	1,677
Corkwood, Scrap	**2,258**	....	....	....	2,258
Corn, Argentine	**137,611**	....	....	....	137,611
Corn Starch	**13**	....	...	13	.....
Cotton Waste	**130**	100	....	29	1
Cream Separators	**1,045**	284	141	444	176
Cream of Tartar	**146**	62	....	28	56
Crockery	**12,110**	2,376	4,604	1,696	3,434
Crucibles	**152**	50	3	57	42
Curling Stones	**39**	4	....	35	.....
Custard Powder	**24**	20	....	3	1
Cutlery	**263**	125	3	40	95
Cyanides	**396**	389	....	6	1
Cylinders, Gas	**59**	12	....	10	37
Degras	**86**	....	....	....	86
Dextrine	**209**	44	....	79	86
Disinfectants	**148**	14	....	76	58
Drugs	**1,523**	110	21	46	1,346
Drug Sundries	**605**	199	15	190	201
Dry Colors	**4,013**	543	116	167	3,187
Dry Goods	**51,904**	20,097	3,197	8,275	20,335
Dyes	**656**	79	....	88	489
Earthen Drain Pipe	**4**	....	....	....	4
Earthenware	**8,280**	3,184	783	1,670	2,643
Earth, Crude	**6**	....	....	....	6
Effects, Settlers'	**2,561**	1,588	183	106	684
Eggs, Frozen	**182**	....	....	....	182
Eggs, Powdered	**10**	10	....	....	.....
Electrical Appliances	**1,619**	1,026	1	156	436
Electric Cable	**92**	78	....	14	.....

GOODS	Total Tons	Distribution after Import			
		RAIL			
		Can.	U.S.	Vessel	Other
Electric Bulbs	**407**	29	....	46	332
Emery Cloth	**22**	4	....	8	10
Enamelware	**501**	136	2	27	336
Engines, Oil	**269**	188	1	7	73
Epsom Salts	**386**	118	33	58	177
Extracts, N.O.S.	**33**	27	....	....	6
Farina	**89**	55	....	28	6
Feathers	**53**	45	6	....	2
Felt, Pressed	**362**	70	....	38	254
Ferro, Chrome	**52**	3	....	....	49
Ferro, Manganese	**389**	185	....	....	204
Fertilizers, N.O.S.	**56**	23	....	....	33
Fibres	**71**	52	....	10	9
Fire Arms	**134**	95	1	1	37
Fire Extinguishers	**3**	3	....	....	.....
Fish, Cured	**2,796**	411	1,622	429	334
Fish, Fresh or Frozen	**27**	....	....	....	27
Fish, Tinned	**1,806**	190	370	406	840
Fish Plates	**5**	....	....	....	5
Fishing Apparatus	**197**	186	2	3	6
Flax Seed	**5,449**	1	....	....	5,448
Flours	**280**	59	....	2	219
Flours, Potato	**1,402**	254	....	154	994
Fluor Spar	**1,212**	....	....	1,143	69
Fly Catchers	**78**	28	....	33	17
Foil, Tin	**4**	4	....	....	.....
Fruit, Dried	**4,284**	683	....	1,705	1,896
" in Brine	**776**	....	....	52	724
" in Tins	**372**	38	7	64	263
" Juices	**219**	23	1	19	176
" Pulp	**212**	17	....	169	26
" Raw	**3,987**	1,033	....	53	2,901
Fuller's Earth	**1,086**	116	....	432	538
Furnace Parts	**9**	6	....	....	3
Furniture	**4,644**	1,214	1,480	550	1,400
Furs	**354**	77	....	1	276
Ganister	**31**	22	....	....	9
Garden Bulbs	**5,810**	2,567	460	1,167	1,616
Gasoline	**35,787**	3	....	....	35,784
Gelatine	**363**	152	....	18	193
Ginger	**140**	24	....	10	106
Glass, Cut	**4**	....	....	....	4
" Jars	**22**	6	6	1	9

GOODS	Total	Distribution after Import			
		RAIL			
	Tons	Can.	U.S.	Vessel	Other
Glass, Sheet	**25,028**	7,980	1,871	2,862	12,315
Glassware	**9,120**	1,734	1,224	1,278	4,884
Glue	**983**	508	....	213	262
Glycerine	**488**	151	....	....	337
Goat Skins	**16**	....	....	....	16
Gramophone Records	**6**	5	....	....	1
Granite, Monumental	**2,927**	1,436	52	28	1,411
Grease	**779**	59	11	506	203
Grindstones	**798**	123	13	....	662
Groceries, N.O.S	**315**	45	35	65	170
Gums	**198**	28	....	....	170
Gypsum	**129**	7	....	....	122
Hair	**30**	30	....	....	.....
Hardware, N.O.S	**2,613**	1,089	150	192	1,182
Hatter's Fur	**192**	180	....	....	12
Hemp, Bales	**70**	5	....	....	65
Hemp Rope	**60**	28	....	2	30
Hides, Green	**762**	648	1	....	113
Hollowware	**522**	113	58	68	283
Hops	**236**	19	4	....	213
Inks	**90**	17	....	17	56
Insect Powders	**19**	7	....	1	11
Instruments, Musical	**859**	316	264	169	110
" " Parts	**57**	5	40	1	11
" Scientific	**233**	95	18	8	112
Insulators	**922**	40	....	134	748
Iron and Steel Balls	**1,448**	....	....	....	1,448
" Bars	**10,939**	1,975	95	389	8,480
" Mfrs. of	**1,241**	457	78	238	468
Iron Ore	**38**	16	....	8	14
" Pig	**2,565**	....	45	....	2,520
" Pipe	**2,122**	....	....	8	2,114
" Sand	**73**	11	....	54	8
" Scrap	**2,801**	....	....	....	2,801
" Sheet	**11,441**	522	....	670	10,249
" Skelp	**4,532**	4,257	....	....	275
Jewellery	**30**	15	2	2	11
Jute Cloth	**5,456**	504	75	34	4,843
Lamp Black	**39**	1	....	....	38
Lamps and Lanterns	**57**	12	4	3	38
Lard	**3**	....	....	3	.....
Lawn Mowers	**4**	4	....	....	.....
Lead, Mfrs. of	**55**	23	9	....	23

GOODS	Total Tons	Distribution after Import			
		RAIL			
		Can.	U.S.	Vessel	Other
Lead, Pig	**59**	6	....	22	31
" Pipe	**13**	8	....	....	5
" Shot	**9**	9	....	....	.....
Leather, Bales	**694**	304	135	29	226
Leather, Mfrs. of	**477**	217	35	22	203
Leaves, Dried	**54**	10	28	....	16
Lentils	**60**	16	....	28	16
Life Boats	**280**	174	....	....	106
Life Buoys	**13**	....	....	3	10
Lime	**29**	2	....	25	2
Lime, Chloride of	**363**	7	....	18	338
Limestone	**7**	....	....	....	7
Linoleum	**654**	265	....	154	235
Liquors	**18,268**	1,561	....	11,383	5,324
Litharge	**379**	117	....	....	262
Lithopone	**4,817**	597	....	222	3,998
Livestock	**93**	85	....	....	8
Lobsters, Tinned	**2**	....	....	....	2
Logs, Ebony	**25**	25	....	....	.....
Macaroni	**135**	....	....	....	135
Machinery	**11,652**	6,480	211	990	3,971
Machines, Sewing	**213**	213	....	....	.....
Machines, Washing	**31**	....	....	31	.....
Magnesia	**574**	43	....	5	526
Mahogany Boards	**152**	....	....	....	152
" Logs	**78**	40	38	....	.....
Malt	**132**	4	....	29	99
Malt Extract	**146**	42	....	104	.....
Manganese Ore	**75,061**	....	....	75,061	.....
Marble Blocks	**1,787**	8	25	19	1,735
" Chips	**1,889**	114	....	....	1,775
" Slabs	**703**	92	8	....	603
Marmalade	**94**	....	39	38	17
Matches	**1,270**	4	....	....	1,266
Meals	**15**	2	....	2	11
Meat, Cured	**56**	1	....	....	55
" Extracts	**292**	66	....	8	218
" Fresh—Frozen	**184**	....	....	....	184
" in Tins	**528**	42	....	7	479
Mercury	**16**	16	....	....	.....
Metals, Scrap, N.O.S.	**2**	....	....	....	2
Meters	**29**	4	....	....	25
Mica	**6**	6	....	....	.....

GOODS	Total Tons	Distribution after Import RAIL Can.	U.S.	Vessel	Other
Milk in Tins	**12**	12	....	....	.....
Millboards	**24**	6	....	....	18
Millinery	**4,108**	1,937	383	153	1,635
Mill Stones	**24**	24	....	....	.....
Mineral Waters	**2,665**	610	31	116	1,908
Molasses	**18,085**	....	....	132	17,953
Molassine Meal	**153**	39	....	....	114
Moss	**33**	4	....	....	29
Motor Boats	**321**	....	....	....	321
Motor Cycles	**24**	13	....	....	11
Mustard	**283**	8	....	236	39
Mustard Bran	**43**	....	....	....	43
Mustard Seed	**138**	46	....	17	75
Nails	**122**	2	....	....	120
Napthaline	**190**	17	....	13	160
Nickle	**6**	6	....	....	.....
" Shot	**804**	....	....	804	.....
" Sulphate	**62**	50	....	12	.....
Nitrate	**45**	45	....	....	.....
Notions	**440**	100	42	65	233
Nuts and Bolts	**11**	1	....	10	.....
Nuts, Edible	**3,773**	617	33	785	2,338
Nutmegs	**18**	6	....	1	11
Oakum	**14**	....	....	....	14
Oil, Bean	**3**	....	....	....	3
Oilcake Meal	**66**	33	25	....	8
Oil, Castor	**593**	164	....	61	368
" Coconut	**263**	30	....	2	231
" Cod Liver	**555**	139	15	94	307
" Colour	**3**	3	....	....	.....
" Colza	**27**	....	....	....	27
" Creosote	**4**	....	....	....	4
" Essential	**235**	36	...	4	195
" Finishing	**34**	....	....	....	34
" Linseed	**77**	....	....	....	77
" Lubricating	**861**	652	....	17	192
" Mineral	**2**	....	....	2	.....
" Oleo	**11**	....	11	....	.....
" Olive	**819**	191	....	138	490
" Palm	**157**	47	....	....	110
" Petroleum	**704,993**	....	....	....	704,993
" Rape	**25**	3	....	3	19
" Resin	**7**	....	....	....	7

GOODS	Total Tons	Distribution after Import			
		RAIL			
		Can.	U.S.	Vessel	Other
Oil, Seal	**81**	....	....	17	64
" Sod	**39**	....	....	....	39
Oilman's Stores	**772**	6	100	441	225
Oxide, Tin	**18**	14	....	....	4
Paint	**415**	106	....	70	239
Paper Bags	**43**	24	....	13	6
Paper, Blotting	**82**	16	....	44	22
Paper Board	**3**	....	....	....	3
Paper Boxes	**15**	2	....	....	13
Paper, Mfrs. of	**2,577**	420	285	360	1,512
Paper, Printing	**1,235**	752	....	218	265
Paper Stock	**1,967**	1,602	85	13	267
Paper, Wall	**333**	134	....	28	171
Paper, Wrapping	**1,179**	153	....	335	691
Paris Green	**13**	4	....	....	9
Peas	**89**	1	....	....	88
Peas, Split	**75**	....	....	....	75
Peat	**274**	206	44	19	5
Peels	**271**	73	3	176	19
Pepper	**343**	54	....	60	229
Perfumery	**493**	75	70	46	302
Phosphates	**13,754**	....	....	....	13,754
Phosphorus	**18**	....	....	....	18
Photo Sundries	**109**	37	6	....	66
Piassava	**22**	17	....	....	5
Pickles	**542**	96	50	97	299
Pictures	**398**	191	14	9	184
Pimento	**166**	8	....	14	144
Pipe Fittings	**92**	5	....	....	87
Pipes, Tobacco	**556**	135	3	60	358
Pipes, Clay Tobacco	**32**	8	3	1	20
Pitch	**14**	1	....	....	13
Plaster	**580**	....	....	....	580
Plasticine	**9**	1	....	7	1
Plumbago	**19**	....	....	....	19
Polishes	**336**	31	1	200	104
Plywood	**119**	20	....	99	.....
Potash	**246**	50	....	40	156
Potash, Muriate of	**2,513**	....	....	2,127	386
Potash, Nitrate of	**297**	22	....	40	235
Potash, Sulphate	**61**	61	....	....	.....
Poultry	**72**	....	....	....	72
Preserves	**902**	74	46	556	226

GOODS	Total Tons	Distribution after Import RAIL Can.	U.S.	Vessel	Other
Printed Matter	**74**	39	5	5	25
Propellors	**13**	8	....	....	5
Pulleys	**101**	86	4	2	9
Pulp Board	**7**	3	....	4	.....
Pulp Filter	**4**	....	....	....	4
Pulpstones	**110**	110	....	....	.....
Pumice Stone	**89**	1	....	....	88
Putty	**743**	70	....	41	632
Quarries	**580**	176	....	157	247
Quartz, Ground	**22**	....	....	....	22
Rabbit Skins	**87**	87	....	....	.....
Radio Parts	**54**	45	....	8	1
Rags	**2,210**	334	....	240	1,636
Razors	**2**	2	....	....	.....
Rennet	**3**	3	....	....	.....
Resin	**87**	....	....	....	87
Rice	**1,220**	58	....	20	1,142
Rice, Unhulled	**3,702**	....	....	....	3,702
Rivets	**6**	....	....	....	6
Rope	**204**	7	....	26	171
Rope Scrap	**200**	89	108	....	3
Roots	**24**	24	....	....	.....
Rubber, Crude	**27**	27	....	....	.....
Rubber, Mfrs. of	**281**	177	14	22	68
" Scrap	**14**	14	....	....	.....
" Substitutes	**10**	7	....	....	3
Saddlery	**130**	76	4	....	50
Sal Ammoniac	**379**	75	....	57	247
Salt Cake	**160**	....	....	....	160
" Coarse	**21,130**	165	....	80	20,885
" Fine	**309**	63	....	199	47
Salts, Bath	**40**	3	....	29	8
" Bitter	**89**	....	....	....	89
" Glauber	**211**	....	....	....	211
" Health	**143**	10	....	109	24
" Rochelle	**82**	....	....	....	82
Saltpetre	**1**	....	....	....	1
Sand	**36,943**	....	....	4	36,939
Sauces	**724**	135	18	328	243
Sausages	**1**	....	....	....	1
Sawdust	**35**	....	....	11	24
Scales	**39**	11	8	....	20
Screws	**9**	3	....	....	6

GOODS	Total Tons	Distribution after Import RAIL Can.	U.S.	Vessel	Other
Seed, Carroway	**74**	7	....	12	55
" Rape	**69**	17	....	34	18
" Garden—Field	**457**	201	26	71	159
Sheep Dip	**22**	2	....	18	2
Sheep Skins	**123**	60	1	....	62
Shooks	**25**	....	....	25	.....
Shortening	**5**	2	....	3	.....
Silica, Ground	**22**	....	....	....	22
Silverware	**657**	279	8	1	369
Sisal	**827**	120	....	....	707
Slate	**23**	20	....	....	3
Soap, Castile	**451**	253	....	43	155
" Common	**104**	35	....	23	46
" Liquid	**36**	13	....	....	23
" Powder	**84**	52	....	28	4
" Toilet	**231**	49	9	33	140
Soapstone	**153**	....	....	....	153
Soda	**206**	154	....	19	33
Soda Ash	**79**	....	....	....	79
" Chlorate	**156**	....	....	....	156
" Nitrate of	**3,859**	190	....	119	3,550
" Phosphate	**2**	....	....	2	.....
" Sal	**20**	....	....	....	20
" Silicate	**99**	....	....	1	98
" Sulphate of	**76**	24	....	46	6
Soot	**10**	....	....	4	6
Spelter	**28**	....	....	....	28
Spices	**299**	28	....	5	266
Sponges	**6**	6	....	....	.....
Spools	**4**	....	4	....	.....
Sporting Goods	**277**	171	6	14	86
Starch	**116**	13	....	66	37
Stationery	**879**	315	17	200	347
Statuary	**600**	103	174	15	308
Stearine	**141**	27	....	....	114
Steel Angles	**4,169**	137	....	10	4,022
" Balls	**442**	308	....	....	134
" Bands	**355**	4	....	....	351
" Beams	**10,690**	371	....	....	10,319
" Billets	**11,828**	108	....	....	11,720
" Channels	**1,238**	....	....	....	1,238
" Hinges	**203**	4	....	32	167
" Hoops	**1,335**	151	....	162	1,022

GOODS	Total Tons	Distribution after Import			
		RAIL			
		Can.	U.S.	Vessel	Other
Steel Joists	**175**	119	....	....	56
" Poles	**52**	....	....	....	52
" Plates	**9,035**	50	23	227	8,735
" Rails	**139**	....	....	....	139
" Rollers	**26**	15	....	....	11
" Sheets	**9,087**	167	41	53	8,826
" Shoes	**28**	28	....	....	.....
" Strips	**467**	239	....	....	228
" Structural	**1,252**	246	....	....	1,006
" Tanks	**6**	5	....	....	1
" Tubing	**2,740**	456	168	3	2,113
" Tyres	**4,013**	1,499	....	....	2,514
Stone, Mfrs. of	**249**	2	3	7	237
" Unmanufactured	**2,887**	2,400	117	....	370
Stoves	**49**	12	....	23	14
Strawboard	**151**	106	....	9	36
Straw Covers	**169**	127	....	....	42
Sugar Beet Pulp	**34**	....	....	34	.....
Sugar, Raw	**169,087**	48	....	897	168,142
" Refined	**95**	22	....	1	72
Sulphate of Alumina	**244**	168	....	48	28
Sulphate of Ammonia	**86**	....	....	....	86
Sulphate of Barium	**88**	88	....	....	.....
Sulphate of Copper	**558**	....	....	....	558
Sulphates, N.O.S.	**34**	....	....	....	34
Sulphur	**27,319**	....	....	....	27,319
Sundries	**535**	207	1	111	216
Superphosphate	**299**	....	....	....	299
Syphons	**21**	15	....	....	6
Syrups	**20**	18	....	2	.....
Syrup, Corn	**290**	7	....	222	61
Talc	**100**	1	....	....	99
Tallow	**3**	....	....	....	3
Tanners' Bark	**21**	21	....	....	.....
" Extract	**310**	131	....	7	172
Tapioca	**100**	2	....	11	87
Tar	**194**	....	....	7	187
Tea	**7,521**	601	12	1,063	5,845
Teakwood	**41**	36	....	....	5
Telephone Material	**44**	44	....	....	.....
Thread	**730**	71	....	58	601
Tiles	**2,356**	503	6	388	1,459
Timonax	**21**	....	....	....	21

GOODS	Total Tons	Distribution after Import RAIL Can.	U.S.	Vessel	Other
Tins, Empty	**224**	27	....	1	196
Tin Ingots	**405**	....	22	85	298
Tin Plates	**9,953**	1,267	....	32	8,654
Tin Tubes	**2**	....	....	....	2
Tinware	**150**	47	36	10	57
Tobacco Leaf	**80**	1	....	1	78
" Mfrs. of	**284**	65	....	8	211
" Sundries	**591**	81	....	5	505
Toilet Articles	**560**	44	8	280	228
Tomato Paste	**135**	119	....	16	.....
Tools	**245**	71	1	16	157
Toys	**17,407**	4,000	3,623	3,399	6,385
Tractors	**9**	....	....	....	9
Trucks	**24**	6	....	....	18
Trunks	**10**	4	....	....	6
Tuning Pins	**26**	....	....	26	.....
Turpentine	**2**	....	....	....	2
Twine, Binder	**6,878**	125	....	442	6,311
" Cotton	**127**	76	....	11	40
" Hemp	**13**	1	....	7	5
" Jute	**4**	....	....	....	4
" various	**21**	2	....	....	19
Typewriters	**2**	....	....	....	2
Umbrellas	**19**	6	....	5	8
Valves	**73**	5	....	....	68
Varnishes	**62**	2	....	12	48
Vegetables in Brine	**65**	31	....	....	34
" in Tins	**1,744**	190	18	126	1,410
" Raw	**4,691**	911	....	....	3,780
Veneers	**22**	22	....	....	.....
Vinegar, Bbls	**71**	....	3	57	11
" in Glass	**107**	....	18	41	48
Virol	**60**	....	....	....	60
Wagons	**5**	5	....	....	.....
Washers, Metal	**20**	....	....	....	20
Watches	**31**	1	1	....	29
Wax	**899**	20	....	....	879
Wheel Centres	**192**	10	....	....	182
Wheels	**15**	4	....	....	11
Whiting	**9,760**	2,794	1	542	6,423
Willows	**17**	17	....	....	.....
Window Frames	**513**	501	....	....	12
Window Shades	**10**	10	....	....	..

GOODS	Total Tons	Distribution after Import RAIL Can.	U.S.	Vessel	Other
Window Rollers	**7**	7	....	....	.....
Wines	**10,585**	1,212	....	1,842	7,531
Wire, Barbed	**89**	21	....	....	68
" Cloth	**64**	10	....	....	54
" Coils	**4,659**	624	....	1,021	3,014
" Copper	**3**	....	....	....	3
" in Bbls	**258**	....	....	108	150
" Mfrs. of	**138**	103	....	....	35
" Netting	**1,961**	529	179	18	1,235
" Rods	**24,600**	10,826	235	1,536	12,003
" Rope	**610**	153	11	54	392
Woodenware	**504**	123	222	83	76
Woodpulp	**13,775**	63	....	13,160	552
Wool	**1,446**	1,132	....	314	.....
" Grease	**92**	....	....	1	91
" Greasy	**534**	356	4	....	174
" Scoured	**150**	105	....	45	.....
" Tops and Noils	**1,991**	1,936	....	53	2
" Waste	**337**	167	....	6	164
Yarn, Hemp	**21**	17	....	....	4
" Jute	**5,801**	3,751	3	420	1,627
Zinc Plates	**340**	24	....	....	316
" Sheets	**506**	80	....	9	417
" White	**311**	44	....	....	267
Totals	**2,693,535**	143,059	26,746	162,182	2,361,548

EXPORTS

GOODS	Total Tons	Carried Before Export RAIL Can.	U.S.	Vessel	Other
Acetic Acid	**6,653**	6,626	....	....	27
Acetone	**6**	....	....	....	6
Acids, various	**4**	2	....	1	1
Advertising Matter	**100**	31	4	20	45
Agricultural Implements	**16,398**	4,963	6,584	4,846	5
Alcohol, Industrial	**76**	21	....	....	55
Aluminum Foil	**3**	3	....	....	.....
" Ingots	**1,634**	1,634	....	....	.....
" Scrap	**27**	....	....	27	.....
" Sheets	**36**	36	....	....	.....

GOODS	Total Tons	Carried Before Export RAIL Can.	U.S.	Vessel	Other
Aluminum Ware	**109**	43	....	66	.....
" Wire	**127**	42	85	....	.....
Ammonia	**284**	1	....	220	63
Ammunition	**79**	77	....	....	2
Animal Foods	**416**	150	....	21	245
Asbestos Cement	**80**	32	....	4	44
" Fibre	**2,914**	2,914	....	....	.....
" Mfrs. of	**42**	3	....	....	39
" Sheets	**22**	....	....	....	22
" Shingles	**85**	12	....	....	73
Asphalt	**27**	....	....	....	27
Asphalt Shingles	**289**	38	....	....	251
Automobiles	**43,146**	5,361	36,961	6	818
Automobile Parts	**16,800**	4,627	12,125	41	7
Axles	**22**	22	....	....	.....
Babbit	**41**	1	....	38	2
Baby Carriages	**9**	7	....	....	2
Bags and Bagging Jute	**1,590**	69	....	58	1,463
Bags, Paper	**148**	64	....	30	54
Balsam	**10**	....	1	....	9
Barley, Pot	**4**	....	....	....	4
Barrels and Drums, Empty	**1,120**	57	8	35	1,020
Basketware	**4**	4	....	....	.....
Batteries	**140**	107	....	33	.....
Battery Plates	**2**	2	....	....	.....
Beads, Glass	**6**	....	6	....	.....
Beams	**30**	30	....	....	.....
Bedding	**942**	230	1	15	696
Beers	**131**	....	....	....	131
Belting	**43**	7	18	15	3
Bicycles and Parts	**292**	283	....	....	9
Bird Seed	**13**	....	....	13	.....
Biscuits	**58**	54	....	....	4
Blocks, Maple	**186**	126	54	....	6
Boats	**57**	52	....	5	.....
Boiler Compound	**37**	6	1	29	1
" Parts	**124**	....	35	....	89
Bone Black	**73**	19	54	....	.....
Books	**176**	109	2	43	22
Boots and Shoes	**92**	31	1	....	60
Bottles, Empty	**849**	181	....	21	647
" Thermos	**19**	15	....	....	4
Box Board	**1,135**	1,135	....	....	.....

GOODS	Total Tons	Carried Before Export RAIL Can.	U.S.	Vessel	Other
Boxes, Empty	**72**	6	....	....	66
" Paper	**133**	3	....	38	92
Brake Shoes	**18**	18	....	....	.....
Bran	**1,910**	519	....	....	1,391
Brass, Mfrs. of	**24**	3	....	1	20
" Rods	**5**	1	...	4	.....
" Scrap	**540**	76	....	54	410
" Sheets	**1**	....	....	1	.....
" Tubing	**1**	....	....	....	1
" Wire	**314**	7	....	....	307
Brewers' Grains	**339**	....	....	....	339
Brick, Building	**97**	94	....	....	3
" Fire	**11**	....	4	....	7
" Glazed	**119**	119	....	....	.....
" Terra Cotta	**4**	....	....	....	4
Bronze Powder	**109**				109
Brooms and Brushes	**318**	129	....	188	1
Bullion	**122**	121	....	....	1
Butter	**252**	71	....	5	176
Butter Milk	**1,291**	163	41	....	1,087
Buttons	**4**	....	....	....	4
Calks, Toe	**21**	1	....	5	15
Canned Goods, N.O.S.	**4,443**	2,414	239	1,096	694
Canvas Hose	**2**	....	....	....	2
Capsules	**81**	18	....	24	39
Carbide	**1,529**	1,529	....	....	.....
Carbon Black	**109**	109	....	....	.....
Carbons, Lamp	**27**	27	....	....	.....
Carborundum Sand	**1,563**	1,563	....	....	.....
Cardboard	**12**	6	....	....	6
Carpets	**40**	25	....	....	15
Casings, Sausage	**1,043**	428	243	171	201
Castings	**116**	111	....	....	5
Catsup	**1,717**	1,606	64	11	36
Celluloid	**6**	2	....	2	2
Cement	**30,479**	5	....	....	30,474
Cement, Roofing	**1**	1	....	....	.....
" Rubber	**13**	13	....	....	.....
Cereals	**5,297**	5,271	20	....	6
Chains	**373**	262	52	23	.....
Cheese	**47,363**	2,790	23	74	44,476
Chemicals, N.O.S.	**159**	64	64	1	30
Chicory	**6**	....	....	....	6

GOODS	Total Tons	Carried Before Export			
		RAIL			
		Can.	U.S.	Vessel	Other
Chinaware	**4**	2	....	....	2
Church Ornaments	**3**	1	....	....	2
Cigars and Cigarettes	**3**	1	....	....	2
Clay, Fire	**23**	....	....	....	23
" Mfrs. of	**3**	....	....	....	3
Clocks	**45**	44	....	....	1
Clothes Pins	**421**	421	....	....	.....
Coal	**3**	....	....	....	3
Cobalt, Acetate	**13**	13	....	....	.....
" Metal	**90**	90	....	....	.....
" Ore	**452**	452	....	....	.....
" Oxide	**29**	29	....	....	.....
Cocoa	**50**	1	....	....	49
" Shells	**37**	....	....	26	11
Coffins	**14**	4	2	....	8
Coke	**60**	....	....	....	60
Confectionery	**729**	153	2	327	247
Containers	**62**	35	....	13	14
Copper Billets	**2,703**	....	....	2,703	.....
" Mfrs. of	**84**	84	....	....	.....
" Matte	**25,357**	25,357	....	....	.....
" Scrap	**50**	12	....	....	38
" Sheets	**32**	8	....	24	.....
" Sulphate	**14**	....	....	....	14
" Wire	**167**	52	12	....	103
Cordage	**25**	23	1	....	1
Corkboard	**10**	....	....	....	10
Corn, Cracked	**76**	....	....	....	76
" Starch	**496**	454	31	11	.....
Cotton Duck	**12**	....	....	....	12
" Raw	**19**	....	....	1	18
" Waste	**698**	55	....	12	631
Cream, Fresh	**3**	....	....	....	3
" Separators	**349**	345	....	....	4
Crockery	**31**	7	....	22	2
Crucibles	**32**	....	....	....	32
Custard Powders	**2**	....	....	2	.....
Cutlery	**7**	4	1	....	2
Cylinders, Empty	**24**	....	....	14	10
Cyanide	**761**	761	....	....	.....
Dextrine	**156**	....	156	....	.....
Disinfectants	**37**	....	....	....	37
Doors	**325**	317	1	5	2

GOODS	Total Tons	Carried Before Export RAIL Can.	RAIL U.S.	Vessel	Other
Dowels	**378**	335	43	....	.....
Drugs, and Medicines	**433**	230	3	115	85
Drugs Sundries	**95**	....	2	....	93
Dry Colors	**761**	44	....	....	717
Dry Goods	**2,003**	927	6	613	457
Dyes	**41**	....	....	21	20
Earthenware	**165**	78	....	80	7
Effects, Settlers'	**1,137**	647	17	9	464
Eggs	**1,594**	288	1,060	....	246
Eggs, Frozen	**41**	....	41	....	.....
Egg Fillers	**321**	234	58	....	29
Egg Powder	**10**	....	....	10	.....
Electrical Apparatus	**483**	192	4	254	33
Electric Ranges	**2,164**	1,867	23	....	274
Enamelware	**48**	19	....	26	3
Engines, Oil	**10**	9	1	....	.....
Epsom Salts	**4**	....	....	....	4
Extracts	**54**	20	....	10	24
Feathers	**182**	90	71	....	21
Feldspar	**40**	40	....	....	.....
Felt	**197**	185	....	....	12
Fertilizers	**7**	1	....	....	6
Fibre Board	**4**	....	....	....	4
Fire Arms	**6**	....	5	....	1
Fire Extinguishers	**9**	....	....	9	.....
Fire Sand	**61**	61	....	....	.....
Fish Cured	**1,489**	195	....	....	1,294
" Fresh	**1,315**	745	....	....	570
" in Tins	**622**	604	....	....	18
" Meal	**2,143**	2,143	....	....	.....
Flax	**147**	85	61	....	1
" Fibre	**12**	12	....	....	.....
" Straw	**285**	285	....	....	.....
Flooring, Hardwood	**983**	657	262	....	64
Flour	**287,622**	165,570	395	....	121,657
" Corn	**281**	281	....	....	.....
" Various	**65**	4	6	2	53
Fruit, Dried	**2,522**	120	2,385	....	17
" in Tins	**547**	134	5	296	112
" Jars	**364**	4	84	....	276
" Juices	**144**	113	....	....	31
" Pectin	**889**	889	....	....	.....
" Pulp	**45**	45	....	....	.....

GOODS	Total Tons	Carried Before Export RAIL Can.	RAIL U.S.	Vessel	Other
Fruit, Raw	**26,008**	14,476	10,526	48	958
" Salts	**48**	....	....	48	.....
" Syrup	**5**	....	....	5	.....
Furnace Parts	**128**	99	....	29	.....
Furniture	**2,200**	1,884	30	11	275
Furs	**266**	128	2	....	136
" Waste	**6**	1	....	....	5
Garden Bulbs	**46**	1	1	2	42
Gasoline	**427**	4	....	1	422
Ginger	**40**	....	....	31	9
Glass, Cut	**2**	2	....	....	.....
" Sheet	**2**	....	....	....	2
Glassware	**283**	53	3	8	219
Glucose	**591**	443	....	148	.....
Glue	**25**	4	....	19	2
Grain in Bags:					
Buckwheat	**3**	....	....	....	3
Corn	**191**	....	....	....	191
Oats	**13,455**	3,898	382	....	9,175
Wheat	**1,529**	....	....	....	1,529
Grain in Bulk:					
Barley	**545,930**	....	....	545,930	....
Buckwheat	**635**	....	....	635	.....
Corn	**3,840**	....	....	3,840	.....
Oats	**127,387**	....	....	127,387	
Rye	**982,294**	....	....	982,294	.....
Wheat	**3,546,832**	....	...	3,546,832	.....
Gramophone Records	**6**	2	....	....	4
Graphite	**232**	38	193	....	1
Grease	**461**	272	92	47	50
Grindstones	**15**	....	....	....	15
Groceries	**61**	18	....	24	19
Gums, Chewing	**626**	228	....	....	398
Gypsum and Plaster	**2,652**	2,633	....	....	19
Hair	**617**	99	490	16	12
Handles, Wooden	**1,164**	213	830	27	49
Hardware	**899**	719	15	82	83
Hides	**53**	6	....	....	47
Honey	**1,106**	113	6	215	772
Hops	**2,461**	279	2,154	....	29
Horse Shoes	**189**	3	....	10	178
Incubators	**67**	35	32	....	....

GOODS	Total Tons	Carried Before Export			
		RAIL		Vessel	Other
		Can.	U.S.		
Inks	**189**	....	2	152	35
Instruments, Musical	**3,145**	1,187	1,477	66	415
" Parts	**8**	7	....	1	.....
" Scientific	**11**	7	2	....	2
Insulators	**92**	78	....	....	14
Iron Bars	**1,627**	43	50	11	1,523
" Mfrs. of	**61**	30	1	26	4
" Pig	**4**	....	....	....	4
" Piping	**7,684**	1,621	....	1,598	4,465
" Scrap	**8,901**	6,026	....	....	2,875
" Sheet	**22**	22	....	....	...
Jewellery	**5**	4	....	....	1
Kalsomine	**357**	51	....	306	.....
Lamps and Lanterns	**172**	34	5	132	1
Lard	**52,018**	906	50,718	60	334
Last Blocks	**117**	82	25	....	10
Lawn Mowers	**103**	52	....	....	51
Lead, Bars	**20**	20	....	....	.....
Lead Pipe	**3**	....	....	....	3
" Sheet	**42**	....	....	42	.....
Leather Board	**44**	....	....	....	44
" Bundles	**640**	340	....	215	85
" Mfrs of	**341**	225	1	49	66
Lignite	**23**	23	....	....	.....
Lime	**29**	....	....	....	29
Lime, Chloride of	**13**	....	....	13	.....
Linoleum	**188**	....	....	....	188
Liquors	**2,891**	2,832	....	55	4
Litharge	**4**	....	....	....	4
Lithopone	**12**	....	....	1	11
Live Stock	**90**	36	....	7	47
Lobsters, in Tins	**498**	445	3	....	50
Macaroni	**331**	42	50	81	158
Machinery	**1,370**	850	265	16	239
Machines, Sewing and Parts	**2,818**	2,803	....	....	15
Magnesia, Milk of	**32**	....	....	32	....
Magnesite	**1,727**	1,727	....	....	.....
Malt	**826**	440	....	....	386
Maple Squares	**221**	221	....	....	.....
Maple Strips	**591**	591	....	....	.....
Match Splints	**1,760**	1,760	....	....	.....
Matches	**2**	....	....	....	2
Meal	**2,719**	2,213	132	....	374

GOODS	Total Tons	Carried Before Export			
		RAIL			
		Can.	U.S.	Vessel	Other
Meat, Cured	**63,191**	17,604	44,022	419	1,146
" Fresh or Frozen	**2,013**	1,203	675	....	135
" in Tins	**2,473**	74	2,189	....	210
Metals, Scrap, N.O.S	**8**	3	....	....	5
Meters	**47**	19	....	26	2
Mica	**11**	11	....	....	.....
Middlings	**149**	....	....	....	149
Milk in Tins	**8,726**	6,028	2,602	....	96
" Powdered	**960**	943	10	....	7
" Sugar of	**14**	14	....	....	.....
Mill Boards	**5**	5	....	....	.....
Millinery	**50**	36	....	....	14
Mineral Waters	**81**	2	....	6	73
Molasses	**4**	4	....	....	.....
Molassine Meal	**20**	15	....	....	5
Motor Cycles	**6**	4	....	....	2
Mustard	**29**	8	....	....	21
Nails	**1,951**	538	13	590	810
Napthaline	**67**	....	....	....	67
Nickel Cathodes	**61**	61	....	....	.....
" Ingots	**1,004**	1,004	....	....	.....
" Oxide	**468**	468	....	....	....
" Shot	**18**	18	....	....	.....
Nuts and Bolts	**699**	104	....	16	579
Nuts, Edible	**58**	22	....	23	13
Oat Feed	**4,665**	4,442	210	....	13
Oats, Rolled	**9,223**	6,783	2,375	....	65
Oil, Cake	**5,720**	758	....	....	4,962
" Corn	**123**	123	....	....	.....
" Creosote	**5**	....	....	....	5
" Essential	**10**	....	7	....	3
" Lard	**6**	....	5	1	.....
" Linseed	**21**	....	....	....	21
" Lubricating	**278**	125	....	51	102
" Mutton	**11**	....	11	....	.....
" Oleo	**1,472**	173	1,182	117	.....
" Tanners'	**2**	2	....	....	.....
Ores	**2**	2	....	....	.....
Oxides	**7**	6	....	1	.....
Paints	**629**	79	37	75	438
Paper, Blotting	**15**	4	....	2	9
" Board	**215**	47	....	....	168
" Mfrs. of	**709**	429	10	79	191

GOODS	Total Tons	Carried Before Export RAIL Can.	U.S.	Vessel	Other
Paper, Printing	**32,938**	32,679	....	53	206
" Roofing	**2,707**	248	....	3	2,456
" Wall	**1,435**	440	....	352	643
" Wrapping	**5,306**	5,065	18	18	205
Paris Green	**19**	....	....	....	19
Peas	**1,019**	773	207	....	39
Peas, Split	**1**	....	....	....	1
Pegwood	**8**	8	....	....	.....
Pepper	**3**	3	....	....	.....
Perfumery	**1**	1	....	....	.....
Peroxide	**11**	....	....	....	11
Phosphates	**222**	218	....	4	.....
Phosphorus	**1,597**	1,597	....	....	.....
Photo Supplies	**632**	614	5	....	13
Pickles	**53**	52	...	....	1
Pictures and Frames	**30**	25	1	....	4
Pimento	**3**	....	....	2	1
Pipe Fittings	**251**	109	....	11	131
Pipes, Tobacco	**4**	3	1	....	.....
Pitch	**82**	5	11	....	66
Polishes	**252**	62	....	136	54
Potash	**9**	....	....	....	9
Powder, Sweeping	**14**	....	....	....	14
Poultry	**111**	....	108	....	3
Preserves	**12**	....	....	12	.....
Printed Matter	**84**	39	2	2	41
Pulleys	**53**	50	3	....	.....
Pulpboard	**2,304**	2,265	38	1	.....
Putty	**11**	....	....	....	11
Radiators	**142**	14	....	64	64
Radio Parts	**54**	12	....	33	9
Rags	**1,172**	31	1	296	844
Rails, Steel	**28**	....	....	13	15
Razor Parts	**21**	1	....	1	19
Refrigerators	**1,384**	982	155	69	178
Releaseall	**15**	....	....	....	15
Resin	**22**	3	....	19	.....
Rice	**218**	....	....	....	218
Rice Meal	**3**	....	....	....	3
Rivets	**36**	8	....	2	26
Roofing, Metallic	**15**	....	....	15	.....
Roots	**14**	14	....	....	.....
Rope	**45**	20	....	1	24

GOODS	Total Tons	Carried Before Export: RAIL Can.	RAIL U.S.	Vessel	Other
Rubber, Mfrs. of	**25,481**	20,986	236	2,601	1,658
Saddlery	**1**	....	....	....	1
Salammoniac	**6**	....	....	....	6
Salt, Fine	**1,814**	1,645	....	166	3
Salts, Fruit	**13**	1	....	12	.....
Sand	**5**	....	....	....	5
Sauces	**126**	117	....	....	9
Sausages	**5**	....	5	....	.....
Scales	**266**	96	165	....	5
Screenings	**23**	20	....	....	3
Screws	**18**	2	....	7	9
Seeds	**2,094**	672	826	585	11
Seneca Root	**8**	8	....	....	.....
Shawinigan Black	**1,280**	1,280	....	....	.....
Sheep Skins	**10**	10	....	....	.....
Shingles, N.O.S.	**109**	9	....	....	100
Ship Stores	**8,405**	....	....	....	8,405
Shoe Counters	**140**	....	....	....	140
Shoe Shanks	**12**	....	....	....	12
Shooks	**1,134**	1,133	....	....	1
Shortening	**536**	201	....	318	17
Shorts	**469**	59	....	....	410
Silica Sand	**27**	27	....	....	....
Silver Ore	**145**	112	....	....	33
Silverware	**6**	5	....	....	1
Skewers	**64**	47	17	....	.....
Soap, Castile	**4**	4	....	....	.....
" Common	**28**	4	....	13	11
" Liquid	**9**	....	....	....	9
" Powder	**261**	4	2	162	93
" Toilet	**2,845**	36	10	2,784	15
" Stone	**328**	328	....	....	.....
Soda	**45**	42	....	....	3
" Bicarbonate of	**27**	....	....	....	27
" Caustic	**94**	26	....	68	.....
" Pulp	**58**	58	....	....	.....
Soups in Tins	**213**	145	14	7	47
Spices	**16**	1	....	15	.....
Spikes	**202**	38	....	....	164
Spoolwood	**159**	158	....	1	.....
Sporting Goods	**94**	45	....	44	5
Staples, Metal	**313**	235	....	....	78
Starch	**166**	9	154	....	3

GOODS	Total Tons	Carried Before Export RAIL Can.	RAIL U.S.	Vessel	Other
Stationery	**132**	65	3	24	40
Staves	**11**	....	11	....	.....
Stearine	**3**	3	....	....	.....
Stellite	**7**	7	....	....	.....
Steel Angles	**43**	38	....	....	5
" Balls	**6**	6	....	....	.....
" Beams	**17**	....	17	....	.....
" Mfrs. of	**20**	8	....	10	2
" Pipe	**41**	....	....	....	41
" Plates	**47**	5	....	....	42
" Sheets	**27**	....	21	3	3
" Strips	**3**	3	....	....	.....
" Structural	**1,297**	1,272	....	....	25
" Tanks	**19**	13	6	....	.....
" Tubing	**57**	32	....	....	25
Stone, Mfrs. of	**298**	1	223	....	74
Stoves	**113**	26	79	....	8
Straw Board	**26**	8	....	....	18
Sugar, Maple	**15**	2	....	....	13
" Refined	**13,842**	6	....	....	13,836
Sulphate of Ammonia	**1,505**	799	....	706	.....
Sundries	**7,765**	596	34	5,646	1,489
Syrups, N.O.S.	**11**	....	....	11	.....
Syrup, Corn	**94**	86	8	....	.....
" Maple	**48**	36	....	....	12
Talc	**402**	402	....	....	.....
Tanners' Extract	**171**	....	162	....	9
Tar	**18**	....	....	....	18
Tarvia	**166**	....	....	....	166
Tea	**84**	....	1	2	81
Thread	**4**	....	....	....	4
Tiles	**22**	....	....	22	.....
Tins, Empty	**34**	....	....	2	32
Tin, Plates	**56**	56	....	....	.....
" Scrap	**2**	....	....	....	2
" Ware	**19**	....	....	15	4
Tobacco Leaf	**764**	739	....	....	25
" Mfrs.	**43**	36	....	6	1
" Sundries	**34**	31	....	2	1
Toilet Preparations	**273**	27	....	226	20
Tools	**589**	472	9	29	79
Toys	**130**	79	29	18	4
Tractors	**3,915**	....	3,915	....	.....

GOODS	Total Tons	Carried Before Export			
		RAIL		Vessel	Other
		Can.	U.S.		
Tractor Parts	**19**	....	19	....	.....
Traction Engines	**148**	....	148	....	.....
Tramway Cars	**624**	624	....	....	.....
Trucks	**1,939**	18	1,920	....	1
Trunks	**119**	14	....	1	104
Twine, Binder	**692**	692	....	....	.....
" Cotton	**19**	5	....	6	8
" N.O.S.	**21**	19	....	....	2
Typewriters	**9**	9	....	....	.....
Umbrellas	**6**	....	....	2	4
Valves	**474**	56	2	69	347
Varnishes	**66**	9	....	7	50
Vegetables in Tins	**739**	566	50	48	75
" Raw—Green	**61**	50	....	....	11
Veneers	**59**	59	....	....	.....
Vinegar in Bulk	**205**	5	....	169	31
Wallboard	**5,323**	5,129	122	10	62
Washers, Metal	**55**	46	....	....	9
Washing Compounds	**153**	1	....	15	137
" Machines	**69**	58	2	....	9
Wax	**2**	....	....	....	2
Wheelbarrows	**5**	1	....	4	.....
Wheels	**332**	273	4	55	.....
Whiting	**2**	....	....	....	2
Window Frames	**2**	2	....	....	.....
" Shades	**202**	191	....	8	3
Wines	**30**	....	....	1	29
Wire, in Bbls	**1,013**	116	....	52	845
" Barbed	**186**	9	....	....	177
" Cable	**185**	22	....	....	163
" Cloth	**77**	23	5	25	24
" Steel, Coils	**3,054**	1,188	....	....	1,866
" Fencing	**1,177**	821	61	229	66
" Mfrs. of	**63**	3	18	29	13
" Netting	**6**	2	....	2	2
" Rods	**13**	....	....	13	.....
" Rope	**5**	....	3	....	2
" Scrap	**51**	....	....	....	51
Woodenware	**111**	51	3	20	37
Woodpulp	**24,350**	24,327	12	7	4
Wood, Rollers	**39**	39	....	....	.....
Wood Shanks	**194**	194	....	....	.....
Wool	**1,360**	1,276	31	44	9

GOODS	Total Tons	Carried Before Export RAIL Can.	U.S.	Vessel	Other
Wool, Greasy	**20**	20	....	....	.....
" Waste	**14**	10	....	....	4
Yarns	**15**	15	....	....	.....
Yeast	**2**	2	....	....	.....
Zinc Dross	**794**	33	....	277	484
" Salt	**25**	....	....	....	25
" Scrap	**32**	32	....	....	.....
Total	**6,175,485**	457,978	191,160	5,239,553	286,794

DOMESTIC

	Total Tons	RAIL In	Out	VESSEL In	Out	Other
Acids	**147**	147	...	...	...	...
Aeroplanes	**40**	30	10	...	...	...
Alcohol, Industrial	**592**	...	590	2	...	...
Ammonia Sulphate	**12**	...	1	11	...	...
Ammunition	**6**	...	...	6	...	...
Angles	**426**	262	164	...	...	...
Animal Feeds	**33**	...	30	...	3	...
Asbestos	**32**	32	...	...	...	...
Automobiles and Parts	**112**	101	6	5	...	...
Bagging	**615**	285	330	...	...	...
Bags, Paper	**7**	7	...	...	...	...
Baking Powder	**185**	184	...	...	1	...
Barrels, Empty	**56**	55	...	1	...	...
Basketware	**20**	19	...	1	...	...
Beams, Steel	**1,170**	1,130	21	...	19	...
Beans, Sacks	**54**	54	...	...	...	...
Beet Pulp	**112**	112	...	...	...	...
Bicarbonate of Soda	**154**	12	142	...	...	...
Bicycles	**87**	87	...	...	...	...
Biscuits	**48**	48	...	...	...	...
Boats	**82**	3	79	...	...	...
Boilers and Parts	**501**	227	274	...	...	...
Bolts and Nuts	**23**	...	23	...	...	...
Boots and Shoes	**21**	...	21	...	...	...
Bowling Alleys	**36**	...	36	...	...	...
Boxes, Empty	**739**	691	33	15	...	...
" Paper	**6**	...	6	...	...	...

	Total Tons	RAIL In	RAIL Out	VESSEL In	VESSEL Out	Other
Bran	**77**	77	...	...	...	...
Brick, Fire	**978**	922	56	...	...	...
" Terra Cotta	**1,543**	1,520	23	...	...	...
Butter	**13**	...	13	...	...	...
Camphor	**3**	...	...	3	...	...
Castings	**250**	149	101	...	...	...
Caustic Soda	**26**	26	...	...	...	...
Cement	**48,582**	7,466	36,810	...	4,306	...
Cereals	**601**	428	162	11	...	...
Channels	**88**	88	...	...	...	...
Charcoal	**892**	499	393	...	...	...
Cheese	**2,988**	36	2,952	...	...	...
Chinaware	**114**	...	...	114	...	...
Chlorides	**183**	182	...	...	1	...
Cinders	**33**	33	...	...	...	...
Clay, Fire	**143**	143	...	...	...	...
Cleansers	**423**	423	...	...	...	...
Coal, Anthracite	**32,005**	31,850	155	...	...	...
" Bituminous	**1,613,572**	12,912	...	1,600,655	5	...
Cod Liver Oil	**1**	...	...	1	...	...
Coffee	**2**	...	...	2	...	...
Coke	**20,474**	2,270	2	18,202	...	...
Confectionery	**10**	...	...	10	...	...
Contractors' Equipment	**636**	357	279	...	...	...
Cooperage Stock	**20**	20	...	...	...	...
Copper Matte	**89**	...	89	...	...	...
Corks	**1**	...	...	1	...	...
Cotton, Raw	**1,541**	1,541	...	...	...	...
" Waste	**80**	58	22	...	...	...
Cream Separators	**216**	216	...	...	...	...
Crockery	**104**	22	...	79	3	...
Dextrine	**11**	...	11	...	...	...
Doors	**26**	26	...	...	...	...
Drums, Empty	**242**	221	14	7	...	...
Dry Goods	**41**	23	...	18	...	...
Earthenware	**46**	...	...	46	...	...
Eggs	**1,569**	1,569	...	...	...	...
Egg Fillers	**16**	16	...	...	...	...
Electrical Apparatus	**87**	56	...	31	...	...
Enamelware	**415**	397	18	...	...	...
Engines and Parts	**110**	64	46	...	...	...
Explosives	**29**	29	...	...	...	...
Extracts	**39**	22	...	17	...	...

	Total	RAIL		VESSEL		
	Tons	In	Out	In	Out	Other
Feathers	**18**	5	...	13	...	...
Felt	**38**	19	19	...	...	...
Fertilizers	**42**	...	42	...	...	...
Fish, Cured	**1,242**	...	38	1,204	...	...
" in Tins	**2,204**	243	...	1,952	9	...
Flax	**940**	913	27	...	...	...
Flour	**2,327**	418	50	1,859	...	...
Flowers, Artificial	**21**	...	...	21	...	...
Fruit, Dried	**254**	183	...	68	3	...
" Green	**2,780**	2,237	543	...	...	...
" in Tins	**1,820**	135	...	...	1,685	...
Furniture	**198**	95	89	11	3	...
Galvanized Sheets	**1,920**	562	1,358	...	...	...
Gasoline	**53,129**	2,769	24,418	25,890	52	...
Gear	**394**	204	190	...	...	...
Glass, Sheet	**86**	86	...	...	...	...
Glassware	**173**	166	...	2	5	...
Glue	**147**	147	...	...	...	...
Grain in Bags	**38**	...	...	...	38	...
Grease	**29**	29	...	...	...	...
Grindstones	**16**	16	...	...	...	...
Groceries	**144**	144	...	...	...	...
Gypsum	**78,411**	185	...	78,226	...	...
Hardware	**213**	169	22	4	4	14
Hay	**35,886**	21,916	66	10,929	284	2,691
Hollow-ware	**41**	18	23	...	...	...
Honey	**60**	60	...	...	...	...
Hops	**22**	11	...	11	...	...
Iron and Steel Bars	**8,807**	3,097	5,329	372	9	...
Iron, Pig	**198**	134	64	...	...	...
" Pipe	**575**	267	251	53	4	...
" Sheet	**566**	188	378	...	...	...
Kalsomine	**25**	24	1	...	...	...
Lard	**697**	667	...	15	15	...
Lead	**33**	33	...	...	...	...
Lime	**973**	969	4	...	...	...
Liquors	**304**	...	...	304	...	...
Lye	**14**	14	...	...	...	...
Machinery	**3,305**	1,692	829	297	487	...
Manure	**20**	...	20	...	...	...
Match Splints	**40**	...	40	...	...	...
Meat, Cured	**75**	75	...	...	...	...
" Fresh and Frozen	**102**	102	...	...	...	...

	Total Tons	RAIL In	RAIL Out	VESSEL In	VESSEL Out	Other
Meat, in Tins	**59**	32	...	18	9	...
Middlings	**186**	186	...	...	...	...
Milk in Tins	**295**	295	...	...	...	...
Molasses	**755**	275	480	...	...	...
Mouldings	**25**	...	25	...	...	...
Musical Instruments	**2**	1	...	1	...	...
Mustard	**19**	19	...	...	...	...
Nails	**147**	...	76	3	68	...
Nuts, Edible	**53**	...	53	...	...	...
Oilcake	**2,547**	50	2,497	...	...	...
Oil, Creosote	**1,656**	293	1,363	...	...	...
" Crude	**461,392**	3,206	1,050	170,761	240,750	45,625
" Linseed	**435**	122	301	...	12	...
" Lubricating	**174**	124	50	...	...	...
" Refined	**16,489**	13	143	16,318	15	...
Oysters	**20**	20	...	...	...	...
Oyster Shells	**245**	245	...	...	...	...
Paints	**363**	322	33	5	3	...
Palm Leaves	**40**	40	...	...	...	...
Paper, Printing	**17**	17	...	...	...	...
" Roofing	**31**	16	11	...	4	...
" Stock	**2,235**	167	2,068	...	...	...
" Toilet	**43**	23	...	20	...	...
" Wrapping	**93**	56	...	37	...	...
Paving Blocks	**404**	404	...	...	...	...
Peanut Butter	**13**	13	...	...	...	...
Peas	**131**	94	...	37	...	...
Pepper	**17**	...	...	17	...	...
Phosphates	**75**	75	...	...	...	...
Pickles	**15**	...	15	...	...	...
Plaster	**1,273**	1,273	...	...	...	...
Porcelain	**267**	134	...	133	...	...
Poultry	**236**	236	...	...	...	...
Preserves	**107**	107	...	...	...	...
Pulpstones	**8**	...	...	8	...	...
Pulpwood	**500**	...	...	500	...	...
Rags	**2,202**	341	1,858	3	...	...
Reels, Cable	**228**	...	197	31	...	...
Refining Earth	**350**	350	...	...	...	...
Refrigerators	**254**	234	20	...	...	...
Rice	**658**	31	...	583	44	...
Rivets	**153**	153	...	...	...	...
Rope	**344**	284	57	...	3	...
Salt, Coarse	**1,276**	1,276	...	...	...	...

	Total Tons	RAIL In	RAIL Out	VESSEL In	VESSEL Out	Other
Salt, Fine	**1,867**	1,867	...	...	...	...
Salts, Epsom	**7**	7	...	...	...	...
Sand	**68,201**	1,637	...	57,824	...	8,740
Sandstone	**154**	154	...	...	...	...
Scrap Brass	**47**	47	...	...	...	...
" Iron and Steel	**5,298**	1,934	3,364	...	...	...
" Lead	**85**	85	...	...	...	...
" Leather	**29**	...	29	...	...	...
" Rubber	**30**	...	30	...	...	...
Seeds	**37**	37	...	...	...	...
Sewer Pipes	**21**	21	...	...	...	...
Ship Stores	**500**	98	397	...	5	...
Shooks	**783**	752	31	...	...	...
Shortening	**89**	89	...	...	...	...
Shorts	**256**	256	...	...	...	...
Slag	**536**	536	...	...	...	...
Slate	**17**	17	...	...	...	...
Soap, Common	**107**	107	...	...	...	...
Soap, Toilet	**105**	105	...	...	...	...
Soda Ash	**257**	257	...	...	...	...
Soda, Sal	**25**	25	...	...	...	...
Soup in Tins	**11**	15	...	...	...	...
Spices	**175**	...	...	178	1	...
Spikes	**89**	...	78	3	...	...
Spoolwood	**1,659**	1,659	...	...	...	...
Starch	**112**	112	...	...	...	...
Steel Billets and Blooms	**11,697**	9,469	...	2,228	...	...
" Caissons	**25**	25	...	...	...	...
" Forgings	**53**	53	...	...	...	...
" Plates	**1,835**	1,449	386	...	...	...
" Rails	**5,315**	5,257	58	...	...	...
" Rods	**2,552**	382	2,170	...	...	...
" Structural	**14,560**	4,845	9,715	...	...	...
" Tanks	**62**	...	62	...	...	...
" Mfrs. of	**12,601**	12,601	...	...	...	...
Stone, Crushed	**61,782**	10,239	...	...	...	51,543
" Dressed	**14**	14	...	...	...	...
" Rough	**2,647**	1,796	...	...	851	...
Stoneware	**137**	83	...	54	...	...
Stoves	**438**	430	8	...	...	...
Straw	**27**	27	...	...	...	...
Sugar, Refined	**69,829**	466	23,231	15,574	30,558	..
Switches and Frogs	**26**	...	...	26	...	...

	Total Tons	RAIL In	RAIL Out	VESSEL In	VESSEL Out	Other
Sundries	**349**	195	...	146	8	...
Syrups	**60**	...	60	...	...	...
Tapioca	**82**	...	...	82	...	...
Tea	**2,531**	11	37	2,483	...	...
Telephone Poles	**64**	64	...	...	...	...
Tiles	**61**	61	...	...	...	...
Tin Plates	**233**	...	...	233	...	...
Tinware	**785**	321	464	...	...	...
Trunks	**29**	14	15	...	...	...
Twine, Binder	**119**	119	...	...	...	...
Valves	**16**	...	...	16	...	...
Vegetables, in Tins	**786**	428	20	259	79	...
" Raw	**14,683**	14,041	559	83	...	...
Vinegar	**19**	19	...	...	...	...
Wallboard	**698**	671	...	27	...	...
Washing Machines	**54**	51	...	3	...	...
Wheels	**11**	11	...	...	...	...
Window Frames	**9**	9	...	...	...	...
" Shades	**2**	...	...	...	2	...
Wine	**18**	...	...	18	...	...
Wire, N.O.S	**224**	16	...	185	23	...
" Copper	**41**	41	...	...	...	...
" Netting	**1**	...	...	...	1	...
" Rods	**148**	83	65	...	...	...
Woodenware	**165**	165	...	...	...	...
Yarn	**18**	18	...	...	...	...
Yeast	**105**	105	...	...	...	...
Zinc	**784**	784	...	...	...	...
Total	**2,713,986**	189,846	127,789	2,008,366	279,372	108,613

TONNAGE SUMMARY

	Rail	Vessel	Other	Total
Domestic	317,635	2,287,738	108,613	2,713,986
do Brick, etc	245,864	79,428	12,875	338,167
Domestic Total	563,499	2,367,166	121,488	3,052,153

Distribution after Import

	Rail	Vessel	Other	Total
Import	169,805	162,182	2,361,548	2,693,535

Carried before Export

	Rail	Vessel	Other	Total
Export	649,138	5,239,553	286,794	6,175,485

Distribution of Tonnage

	Rail	Vessel	Other
Domestic	563,499	2,367,166	121,488
Import	169,805	162,182	2,361,548
Export	649,138	5,239,553	286,794
Totals	1,382,442	7,768,901	2,769,830

Total Tonnage all Sources

Domestic	3,052,153
Import	2,693,535
Export	6,175,485
Grand Total	11,921,173

STATEMENT OF TONNAGE FOR DIRECT TO VESSEL BULK GRAIN—1927

GRAIN	Tons
Wheat	3,546,832
Barley	545,930
Rye	982,294
Oats (Canadian)	59,353
Oats (American)	68,034
Buckwheat	635
Corn	3,840
Total Tons	5,206,918

MISCELLANEOUS

	Total	RAIL In	RAIL Out	VESSEL In	VESSEL Out	Other
Bricks (Number)	4,663,500	4,396,500	...	267,000	...	...
Firewood (Cords)	3,687	1,354	...	2,333	...	...
Grain Doors (Cars)	154	7	147	...	...	...
Lumber, dressed (feet)	1,562,224	991,248	820	567,045	...	3,111
Lumber, rough (feet)	74,403,968	27,030,554	315,381	40,194,133	...	6,863,900
Ogilvie F.M. (cars)	3,813	1,180	2,633	...	...	...
St. John Frt. (cars)	854	854	...	...	...	...
Railway Ties (number)	7,944	7,944	...	...	...	...

Estimated Tonnage of above

Commodity	Tons
Brick	11,659
Firewood	3,687
Grain Doors	1,848
Lumber, dressed	2,929
Lumber, rough	139,507
Ogilvie Cars	152,520
St. John Freight	25,620
Ties	397
Miscellaneous Total	338,167
Domestic Total	2,713,986
Grand Total, tons	3,052,153

STATEMENT OF COAL IMPORTS

FOREIGN COAL AND COKE IMPORTED EX VESSEL

Kind	Anthracite	Bituminous	Coke
British	683,090	63,419	2,447
German	4,818	....	4,461
Dutch	8,701	....	....
American	....	87,634	....
Total tons	696,609	151,053	6,908

	Tons	
Anthracite	696,609	
Bituminous	151,053	
Coke	6,908	
Total		854,570 tons

OTHER COAL IMPORTS

Canadian Bituminous (ex vessel from Nova Scotia)	1,613,572 tons	
American Anthracite (ex rail)	32,005 "	
Grand Total		2,500,147 tons

Grain Ships in the Harbour

NEW HARBOUR BY-LAWS

A harbour work of considerable importance which had been under way for some time was brought to fruition in 1927 with the issuance of a completely re-written and revised set of Harbour By-laws and Tariffs, bearing the approval, as required by law, of the Governor in Council. By-laws of antiquated form, some of which dated from the era of sailing ships, were rewritten, and in their new form the By-laws which govern procedure and conduct within the precincts of the Harbour of Montreal are easy to understand, and are thoroughly codified, notated, and indexed. The Harbour tariffs which are also By-laws, and bear a number in the complete code, are included in the compact volume which is available for issuance to the public, but in addition, each tariff By-law, in pamphlet form, has been printed separately.

Increases have been made in the rates for switching cars on the Harbour tracks. Before this step was taken, the Commissioners gave serious study to every phase of this situation, and had conferences with the representatives of the Canadian National Railways and the Canadian Pacific Railway. The old switching rates, which were exceptionally moderate, and were everywhere recognized as the lowest in North America, were based on a "per car" basis, and were first established at a time when railway cars were very much smaller than the type of equipment in use to-day, when wages and operating costs were much lower than at the present time, and when the equipment of the Harbour Railway did not include standard 100 lb. section, ballasted tracks, and an electrified system operated by electric locomotives, the provision of which has resulted in more efficient service to the railway companies, and a saving in wear and tear on rolling stock.

FRESH WATER SERVICE

An important branch of the Commissioners' activities is the supply of fresh water to ships. Hydrants are located at intervals along the water front, and several crews of men are employed during the navigation season filling orders for water

HARBOUR COMMISSIONERS' COLD STORAGE WAREHOUSE

for boilers and drinking-water tanks on vessels about to sail. A motor truck is used to convey the lengths of hose from the drying towers to the vessels.

The following is a statement of the number of services rendered by this Department, and the volume of water supplied to vessels, for the past ten seasons of navigation:—

	No. of Services	Volume of Water Cu. Ft.
1917	153	568,650
1918	318	2,349,670
1919	382	1,423,000
1920	507	2,179,550
1921	520	1,885,900
1922	617	2,900,000
1923	567	2,300,000
1924	731	2,684,100
1925	803	3,379,900
1926	682	2,579,200
1927	838	3,004,000

COLD STORAGE WAREHOUSE

The Harbour Commissioners' Cold and General Storage Warehouse, which is situated so advantageously on the water-front between Berri and Beaudry Streets, with connections to both rail and shipping, was availed of during 1927 by far-sighted importers and exporters of perishable products. The excellent equipment and up-to-date methods of operation of this important Harbour utility are becoming widely known over an extensive commercial territory, and both fish concerns from the Maritime Provinces and packing houses from the Middle West are familiar with the savings to be realized in storing and shipping their products through the Harbour of Montreal.

In 1927 important increases were recorded in many commodities, the most noteworthy being in the storage of nuts, of which more than 3,000,000 pounds was stored. Again, in the warm summer months, the Warehouse stored large

quantities of valuable furs. Decreases were experienced in the storage of cheese and butter, due to the shrinkage in the export of these commodities from Canada, a result of a dull European market.

At the end of the year the Commissioners made an important concession in switching charges to customers of their warehouse. All switching charges on rail traffic from points outside the Harbour to the Commissioners' Cold Storage Warehouse, and from the warehouse to points outside the Harbour Commissioners' territory, have been cancelled.

The following are the quantities of the more important products stored during the year:—

Apples, barrels	17,720
" boxes	30,797
" evaporated, pounds	111,650
Butter, pounds	8,109,248
Cheese, "	36,368,370
Celery, crates	20,434
Canned Goods, cases	4,399
Eggs, doz	1,468,020
Fish, pounds	1,238,498
Meat, "	3,993,866
Poultry, "	1,768,110
Onions, bags	7,454
" crates	5,674
Hops, bales	5,047
Binder Twine, pounds	307,350
Furs, pounds	97,775
Nuts, "	3,168,258

HARBOUR POLICE DEPARTMENT

During the season of navigation the Harbour Police force, consisting of Chief, three captains, and sixty-five constables, maintained order within the Harbour, protected life and property, and regulated the traffic on the wharves.

For the winter season the force consisted of four officers and twenty-six constables.

An automobile and two motor-cycles are attached to this department, and were in constant use during the year, 43,026 miles having been covered by these vehicles during 1927. A continuous patrol is maintained by means of this equipment from Windmill Point to the Imperial Oil plant at Montreal East.

The police department rendered first aid in 30 cases of accidents on the waterfront.

During the year 76 arrests were made for various offences within the Harbour, and, in addition, seven arrests were made for contravention of Customs laws.

8,081 carters, loading at various places along the Harbour, were checked by the traffic constables.

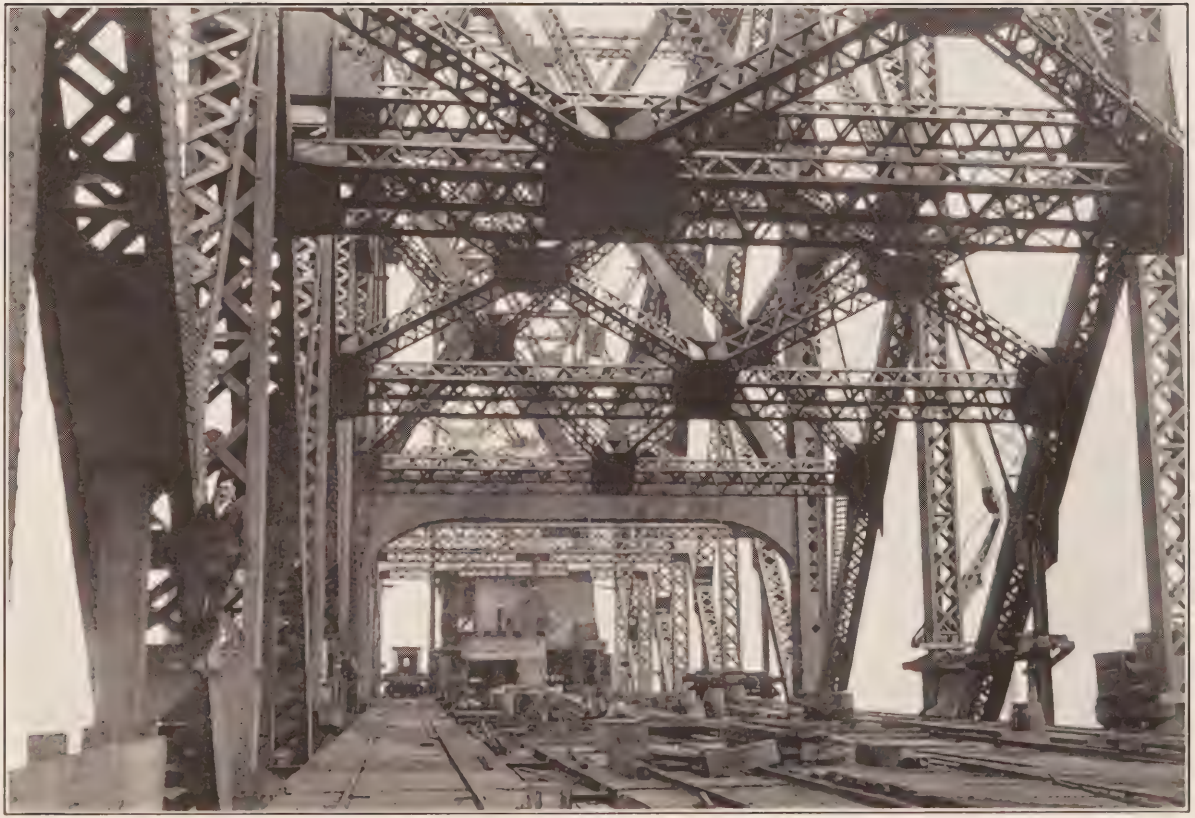
5,248 taxicabs were checked and their numbers taken.

THE NEW BRIDGE

Work on the new Montreal South Shore Bridge was pushed forward energetically during 1927, and the Commissioners append a detailed summary of the progress of construction on this important project during the year.

NOTES ON THE 1927 SEASON OF CONSTRUCTION

Considerable and visible progress was made during 1927 with both piers and steelwork. The moving out of the ice was eagerly awaited by all concerned, and immediately it became safe to work in and navigate upon the river, preparations were initiated for the various programs. On the 18th of April the contractor for the south side substructure began building his construction trestle from the temporary wharf near the site of Pier No. 13 eastwards toward the south shore. It was his intention to build this trestle as far as Pier No. 8 so as to serve this and all intermediate piers with material and equipment from scows unloading at the wharf in the river, the shallowness of the water preventing any craft from navigating nearer the south shore than Pier 13. Pier No. 7 had, of course, been carrying steel all the winter, and along with the earlier piers was finished except for surfacing

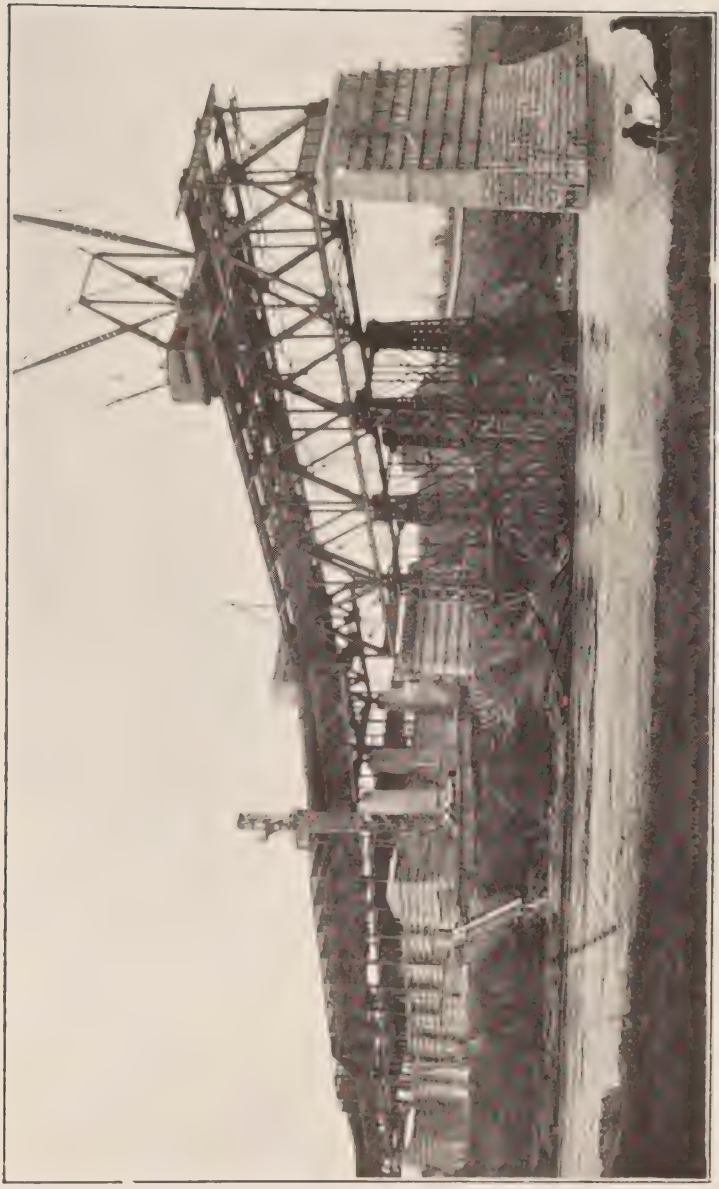


A bit of the New Bridge in course of erection

and sandblasting. By the early part of May the trestle was complete, and stone-laying from floating plant was in progress on Pier No. 13. The timber cofferdams of Piers 12 and 14 were also given early attention with a view to extending them upward to afford means of unwatering the pier tops and permitting stone-laying. Gangs were set to sandblasting the stonework of Piers 16 and 17 and to rubbing down the upper shafts of these same piers. During the season several piers were treated in this way in an effort to remove the coatings of cement deposited on the stone during pouring concrete above, and to smooth off the form-marks and other unevennesses of the shafts. The major portion of the work of this contract during the year was of a routine nature, consisting of stone-laying, backing, forming and pouring. Fair progress was made after work had once got under way and Pier No. 8 was completed by the end of May. Pier No. 9 followed on the 16th of June and No. 13 on the 20th. By the 6th of July No. 10 had been fully poured, and by the 16th No. 12 also. About this time attention was turned to Pier No. 15 which had been started in the 1925 season and had been left in November of that year with one course of stone laid and backed. A shallow cofferdam was built and sunk around this A course, so that after suitable caulking, the top could be unwatered and the B course laid. From this point up, the pier was clear of the water which stood at El. 96. 1 on the 18th of July when the B course was finished. Pier No. 11 was the next to reach completion, its coping being poured on the 25th of July, while the final two, Nos. 14 and 15, were coped on the 20th and 27th of August respectively. Some dressing of bridge seats to true and level surfaces was then necessary, after which the contractor devoted his attention to the delivering and placing of rip-rap under the direction of the Engineers. The bases of Piers 13, 14, 15, 16 and 17 were protected in this fashion, some 4,647 tons of rock being supplied for the purpose. Special consideration had meanwhile been given to the protection of Pier No. 1, and the Engineers decided to substitute a sloping stone revetment wall for loose rip-rap at this site. Plans were therefore prepared

and the ground staked out so that by the 26th of September teams were busy hauling stone. The wall was built of about one-man stone carefully set in layers in a cleared and graded area both up and down stream from the pier centre line, and with its toe dug well into the natural shale rock formation. The flat dry finished top of the stone matt was then treated with a suitable mix of concrete to fill the interstices about 15 or 20 inches deep and to leave a kind of glacis at 3 to 1 slope upon which the ice can slide without eroding the ground near the pier footing. The work was well and successfully carried out by the 4th of November and will prove to be a more sightly, more permanent and more economic protection than the rip-rap tentatively specified.

The Dominion Bridge Company, as steel contractors, were close on the heels of the foundation contractors throughout the season on these south side piers, and as soon as the way was clear they set about a Summer and Fall program looking toward rapid progress to and across the Island. Starting from Pier No. 7 on the 26th of May, falsework bents of timber were used for the erection of the two 197 ft. spans up to Pier No. 9 and for the first 245 ft. span 9-10. On account of the rate of progress with the substructure it was the 27th of July before steel was permitted to sit on Pier No. 10. A three-weeks curing period was insisted upon between the last pour of concrete and the actual supporting of the steel weight on the pier thus newly finished. On a few occasions this policy did involve a slight delay in landing a span on its far support. Over Pier No. 10 the cantilevering harness was first erected, and the remaining spans to Pier No. 18 were built out by the cantilever method. Familiarity with this process was soon established and the time necessary to erect from one pier to the next was reduced from ten days to four-and-a-half during the placing of the nine spans. The dates of landing on the various piers were as follows: on No. 11 by the 15th of August; on No. 12 by the 25th of August; on No. 13 by the 1st of September; on No. 14 by the 9th of September; on No. 15 by the 15th of September; on No. 16 by the 22nd of September; on No. 17 by the 28th of September and on No. 18 by the 6th



The New Bridge at St. Helen's Island

of October. Magnificent progress was thus made in these few weeks, 2,713 tons being erected in September alone.

Meanwhile the pavilion foundations had been started, with the special object of having all concrete work reach the column base levels in time to permit the steel frame erection to follow directly on after the approach span from Pier 19. It was regarded as a possibility in view of the rapid steelwork progress just referred to that if the pavilion could be crossed, some of the spans between it and the Anchor Pier No. 23 might also be placed this season. There proved, however, to be more work than the Dufresne Company had anticipated in the lower storeys of the pavilion structure. Apart from the actual footings the walls on the downstream side were of a considerable height, and their construction involved the placing of certain floor-slabs and floor girders at elevations below the column bases. Consequently, although the east wall pylons were ready in good time to receive steel on the 20th of October, the other work ran into bad weather, and it was the 8th of November before the pavilion steel could be started, and the 7th of December before the whole 800 tons was in place. Pier No. 20 was later reached, but erection beyond this pier was now inadvisable and was postponed until after the ice should have cleared in 1928. Certain riveting was continued up to the 21st of December, on which date the work was closed down for the winter.

On the north half substructure contract all the main piers were carried to completion during the 1927 season. In the spring all the necessary plant and office accommodation had to be re-assembled on the Island (Ile Ronde), trestles rebuilt and enlarged, concreting towers and mixing equipment re-installed, and a great deal of preliminary work of this nature undertaken, before actual progress could be started. These early operations began about the 20th April and occupied about a month. Toward the end of May, forms were being prepared for the continuance of concreting on Piers Nos. 23 and 24, and stone-laying was shortly thereafter resumed. The power transmission line from the South Shore was restrung, and current was switched on at 3 p.m. on the 6th of June. This

made possible the operation of the compressor plant, and on the 10th air was again applied to the working chamber of the partially sunk caisson at Pier 21. Sinking was resumed after the necessary overhauling and refitting, and by the 28th of June the cutting edge was finally landed at El. 62.6 on satisfactory rock. Excavation was rapidly completed, the chamber was filled and grouted by the morning of the 12th of July and the pier was then carried up in the normal manner to its cope. Of this group of piers on or near Ile Ronde, No. 23 was the first to be finished, its coping being poured on the 27th of July. A month later, on the 28th of August, Pier No. 22 was completed, followed by No. 24 on the 7th of October, and No. 21 on the 14th. The East—or river—Main Pier No. 24, constitutes a monumental piece of work, and will be long notable for its foundation construction as well as its general dimensions. The subaqueous excavation totalled over 6,000 cubic yards, and the total concrete in the pier reaches almost 23,000 c. yds. In addition to the steel frame caisson there are 100 tons of rods used for reinforcing, and some 1,400 sq. yds of limestone used for facing. The money investment in this Pier No. 24 will amount to half a million dollars. Sand-blasting on the stone-facing of these piers was also successfully carried out during the autumn, and any fine dressing of bridge seat surfaces found necessary was attended to. On St. Helen's Island, Pier No. 20 was begun late in the season, but finished on the 24th of November. Here, as in the pavilion, heated aggregates were used in the cold weather. Before finally dismantling their plant the Dufresne Company poured several falsework footings in the river under the anchor arm span for the use of the steel contractors next season.

Passing now to the City side, the outstanding feature for the 1927 year was the erection of 3,288 tons of the main span steelwork, this being placed in the north anchor and cantilever arms. Early in the year, work was commenced on the two 12 ft. diameter caissons situated under panel point 9 of the anchor arm, and destined to carry the load coming on two posts of an important falsework tower during various stages

of the steel erection. The caissons were therefore carried down to rock, some 85 ft. below the surface, and some 70 ft. below the river level. They were sunk by the Dufresne Co. as sub-contractors, using the pneumatic process, with air-pressures up to 30 lbs. per sq. inch above atmospheric, and were successfully completed by the end of March. Dismantling of equipment and re-arrangement of trackage were then undertaken, so as to prepare the ground for the erection of travelling derrick-towers and timber falsework in May. The steel bents seated upon the two caisson foundations were then erected, and the falsework truss upon which the permanent steelwork was to be built was placed in June. On the 20th of that month, the steel castings forming the beds under the main shoes were lifted into place and carefully set on the top of Pier No. 25, and thus main-span erection had commenced. From this time on, the placing of shoes, bottom chords, floor system, truss verticals, main-posts, bracing, diagonals and top-chords proceeded substantially in that order, until four main panels of the anchor arm and one of the cantilever arm were erected and riveted. The huge 300 ton principal erection traveler was taken down and re-erected on the cantilever side, and the falsework truss, having served its purpose, was taken down to be refitted for further use on the south side next season. The wooden derrick-towers were also removed, the derricks attached to the truss members being left for use in raising material during successive erection periods. From all points of view the field work was very satisfactory, and good progress, well up to scheduled expectations, was made.

Further, up-town, the pedestals and piers of the City Approach were commenced and well advanced during the year. The four granite-faced piers at St. Catherine St. East were finished except for final dressing, and a start was made on Pier No. 55, the last one to receive steelwork. Footing conditions were found to vary very considerably along the route, and piling was required in many cases, whereas in other cases the boulder clay proved entirely adequate for the loads. In all, besides the St. Catherine St. Piers Nos. 45 and 46,

Looking East from the top of the New Bridge

pedestals Nos. 28 to 40 were completed, pedestals 27, 41 and 42 were partly poured, column footings 56, 57 and 58 were partly poured, Pier No. 55 was poured up to ground level, and excavation was done or commenced on pedestals 43, 44, 49, 50, 53 and 54, and column footings 59 and 60. The substructure as a whole advanced during the year from 68.8% to 95.5% completed, and the payments certificated in 1927 for substructure contracts reached $838,837.36, including the pavilion up to El. 174.32.

The Bridge steelwork in the same period advanced from 20.0% to 52.5% measured by certificates, or from 1,942 tons erected to 12,520 tons erected, measured by field work only. In addition, the whole 800 tons of pavilion steel were fabricated and erected during 1927. Lastly, the total money value of permanent work certificated by the Engineers during the year was $3,397,515.16.

HARBOUR RAILWAY TERMINALS

The volume of railway traffic handled on the Harbour terminals during the months preceding the opening of navigation 1927, fell short by a considerable margin below that of the previous year. This loss during the pre-navigation period amounted to approximately 5,000 cars. Much of this decrease is attributable to the discontinuance of the movement of interchange traffic to which reference was made in the Annual Report for 1926.

Although the movement of export and import traffic began earlier than usual—April 20th—the first months of the season of navigation showed a progressing decrease in the returns, and it was not until the peak months were reached that the rail-hauled traffic attained proportions above the previous year. In September the movement of rail traffic improved considerably, but the greatest improvement was experienced during November. The latter month gave the best results of the year, and to a considerable extent made up for a season which would otherwise have been unsatisfactory when compared with former years. The December returns, however, fell

below those of 1926, which somewhat reduced the gain of the Fall months.

The total number of cars handled during 1927 amounted to 195,853, which is a decrease of 4.5% as compared with 1926, due to the general export traffic by rail having suffered a contraction as compared with the previous year. The loss in cattle shipments was the largest single contributing factor in this shrinkage, not a single car having been handled during 1927, while more than 1,800 cars were received in 1926. Decreases were recorded in the movement of the interchange traffic, as also in shipments from the Imperial Oil Ltd. at Section 101, and in the traffic from the Canada Cement Co. at Section 100 for furtherance to railway points.

Due to the increase in imports the forwarding of loaded cars from the Harbour registered a slight increase for the whole year. Taken for the season of navigation only, this increase is considerable, and may be attributed to the larger imports of British and foreign coals.

The figures for car handlings at the Sheds during the season of navigation evidence the increase in import, and the decrease in export rail traffic, the number of cars loaded having been 14,348 as compared with 12,317 in 1926; and the number of cars unloaded having been 24,141 as against 29,073 in the previous year.

Transporting of freight within the limits of the Harbour terminals again registered an improvement during the year, mainly in shipments of coal and cement. There were small shrinkages in the movement of bagged grain and sugar for export.

After the month of September the handling of cars to and from the Montreal Tramways Company's connection at Section 71 was discontinued when this feeder, which has for many years supplied the Harbour railways with a small volume of traffic from industrial plants, became inoperative through being taken over by the Canadian National Railways.

With the completion of the extension to the Locomotive Shop, suitable accommodation was furnished for the housing of the nine electric locomotives. These locomotives were oper-

Railway tracks serving sheds in the Port, all electrified

ated during the year with very satisfactory results, and, as in the case of the steam locomotives, the number in daily operation varied with the volume of traffic. The running record of the electric locomotives during 1927 shows that they were in operation during 10,788 hours, and covered during that time 33,249 miles in switching service.

An important, though temporary, re-arrangement of tracks at Sections 26-28, necessitated by the construction work of the Montreal South Shore Bridge, was carried out prior to the opening of navigation. In addition, new tracks were built to wharves at Sections 31-32, and alongside new wharf at Sections 38-39.

In December, 1927, increases in the Harbour switching rates were put into effect, fuller details of which are given in the paragraph on "New Harbour By-laws" in this Report.

The following table gives the mileage of Harbour Railway tracks, and the number of cars handled during the past sixteen years:—

	Mileage of Harbour Railway	Number of Cars handled by Commissioners
1912	34.91	112,911
1913	37.30	114,531
1914	39.88	114,499
1915	44.92	157,480
1916	49.11	234,439
1917	52.35	215,394
1918	55.35	247,009
1919	58.32	182,328
1920	58.34	174,181
1921	58.54	143,564
1922	58.77	200,593
1923	60.64	216,382
1924	63.24	225,377
1925	63.55	251,586
1926	65.19	205,481
1927	67.44	195,853

The extent of the Harbour Commissioners' railway tracks at the end of 1927 is as follows:—

	Lin. ft.	Miles
South of Lachine Canal, Bickerdike Pier, Windmill Point Wharf and West	49,084	9.2962
To Guard Pier	10,400	1.9697
Sections 12 to 46, High Level, Main Line	57,079	10.8104
To Piers, Elevators, Crossovers and Sidings, etc	122,469	23.1948
Sections 35 to 46, Low Level, Main Line	10,080	1.9090
Sections 46 to 101, High Level, Main Line	54,134	10.2526
To Wharves, Industries, etc	50,546	9.5731
At South Shore, St. Lambert	2,300	0.4356
Grand Total Tracks, end of 1927	356,092	67.4414
Grand Total Tracks, end of 1926	344,238	65.1963
Increase in 1927	11,854	2.2451

ENGINEERING DEPARTMENT

The main items of Construction and Repair work carried out during the season of 1927 are the following:—

Wharves

Continuation of Shore Wharf at Sections 32-33.
Continuation of Bickerdike Pier construction.
Back-filling of Shore Wharf at Section 38.
Construction of Wharf and Mole at Section 100.

Buildings

Annex to Elevator No. 3.

Sewers

Very short lengths on Bickerdike Pier and at Section 30.

Dredging

Continuation of Dredging operations in Bickerdike Basin and its Entrance Channel.

Dredging of Channel at Sections 58-60.

Maintenance dredging.

Dredging in connection with New Wharves—

At Bickerdike Pier.

At Sections 32-33.

At Section 99.

Electrical Work

Additional Power Equipment for Elevator No. 3.

Transmission and Service Lines extension.

Paving

Sections 20-21, High Level Roadway.

Victor Street Ramp.

Shed No. 16 Ramp.

Railway Construction

Construction and rearrangement of Railway Yard in vicinity of New Bridge Site.

Track Service at Sections 31-32.

Track Service at Sections 38-39.

Extension of tracks at Victoria Bridge; end of Alexandra Pier, and at Harbour Yard.

NEW WHARVES

High Level Shore Wharves, Sections 32-33

The first 242 lin. ft. of the third 500 ft. saw-tooth wharf was completed to cope elevation 119.00, representing 1,547 cu. yds. of concrete. In addition two concrete cribs 107 ft. long, 42 ft. wide and 42 ft. high each were also sunk and filled during the 1927 season.

Bickerdike Pier

The first two 120 ft. concrete cribs sunk in Bickerdike Basin in 1926 were completely finished to cope elevation 119.00 during the season of navigation of 1927. Five additional cribs 112′ 6″ long were also sunk and filled and their superstructure brought up to elevation 117.83.

High Level Shore Wharf, Section 38

With the exception of the filling of two temporary slipways in this shore wharf, no further concrete work was carried out during season 1927. The work of placing the back fill and the grading of the reclaimed wharf area between the new and the old shore wharf was completed before the opening of navigation and used throughout the season for the berthing of ships.

Industrial Wharf, Section 100

A new industrial wharf was started at Section 100. One concrete crib representing some 113,400 cu. ft. was sunk and filled before the close of navigation and will be utilized for the berthing of ships at the opening of navigation in 1928.

RECAPITULATION OF WHARF CONSTRUCTION

Cribs Sunk:

	Number	Length on Cope Line Lin. Ft;	Quantity Cu. Ft.
Bickerdike Basin (Concrete)..	5	569	567,000
Bickerdike Basin (Timber)...	1	81.5	80,827
Section 33 (Concrete).....	2	216	377,496
Section 100 (Concrete).....	1	112.5	113,400

Quay Walls:

		Lin. Ft.
Partly built formerly, now completed:		
Bickerdike Basin.....	271	
Sections 32-33.....	242	
Total completed.....		513
In Progress:		
Bickerdike Basin.....	569	
Section 32.....	216	
Sections 38-39 (same as at end of season 1926).....	964	
Section 100.....	112.5	1,861.5
Total Quay Walls completed and in progress		2,374.5

The extent of the Wharves and Piers at the end of the season of 1927 is as follows:—

30 ft. depth and over at O.L.W.	32,529	lin. ft. or	6.1608	miles.
25 ft. to 30 ft. depth	14,758	do	2.7950	do
Total Deep Draught	47,287	do	8.9558	do
20 ft. depth and under	1,561	do	0.2956	do
Total Wharfage end of 1927	48,848	do	9.2514	do
Total Wharfage end of 1926	47,308	do	8.9595	do
Increase in 1927	1,540	do	0.2919	do

BUILDINGS

Extension to Grain Elevator No. 3

During the past year, the Harbour Commissioners decided to increase the storage accommodation at Elevator No. 3 by a 3,000,000 bushel addition, and the contract for the piling under the working house was awarded to the Raymond Concrete Pile Co., Limited. It was not found necessary to drive piles under the storage bins.

The contract for the working house and storage concrete work was awarded to E. G. M. Cape and Company, and the steel work for the cupola and galleries to Canadian Vickers, Limited.

Work was commenced on the concrete structure of these buildings on August 30th, and during the season the whole of the working house bins and the concrete mattress, first storey piers and part of the bin slab were completed. Work on this portion was stopped during the winter months only when it had progressed to a point which would allow of the erection of the bin forms without any delay as soon as the spring is far enough advanced to permit of running concrete in the moving forms.

The working house when completed will be 204 feet above ground level and has an area of 95 ft. x 142 ft. It has a

Erection of New Bins at Elevator No. 3 Extension

frontage of 95 feet on the Notre Dame Street side and 142 feet on the Nicolet Street face.

When completed, the cupola of this extension will be 204 feet above ground level.

The bins are of the rectengular type, the majority of which are 15 feet square and 80 feet deep. Below the bins there is a spouting storey 21 feet high with basement below,

The 54 large storage bins are 23 feet in diameter by 100 feet deep with 40 interspace bins. Below these bins, there is a lower storey of a type similar to that in Elevator No. 3 for the accommodation of six shipping belts. The area occupied by these storage bins is 212 feet x 142 ft.

All receiving facilities are already a part of Elevator No. 3 and all shipping by water from the new Annex will be by belt galleries connecting to the existing galleries of Elevator No. 3.

The new Annex is situated to the North of Elevator No. 3, but, with the exception of galleries which connect the two houses, it is entirely separate from Elevator No. 3, the railroad tracks intervening between the Annex and Elevator No. 3.

The work was designed by, and is being carried out under the superintendence of the John S. Metcalf Co., Limited, Grain Elevator Engineers of Montreal.

The addition to the Harbour Commissioners' elevator system by the completion of this Annex will bring the total storage capacity of the Port up to 15,000,000 bushels.

SEWERS

The following sewers were laid during 1927:—

Bickerdike Pier: 90 lin. ft. of 9″ tile pipe.

Section 30, Bridge Site: 60 lin ft. of 9″ tile pipe.

PAVING

Sections 20-21, High Level Roadway

That portion of the High Level macadam roadway between the New Wharf Office Building, Victoria Pier, and Berri St. Ramp Subway, was paved with Amiesite during the year. Some 1,760 sq. yds. were laid.

Victor Street Ramp

The Victor Street Ramp, leading from Commissioners Street to the Low Level Market Basin, was paved with granite blocks, in all 1,625 sq. yds. having been laid.

Shed No. 16 Ramp

The ramp leading from the High Level to Low Level Victoria Pier was laid with 620 sq. yds. of granite block paving.

RAILWAYS

The mileage of the Harbour Commissioners' Railways was increased during the season 1927 by 2.24 miles. This is represented by—

The construction and re-arrangement of a new railway yard in the vicinity of the New Bridge site, amounting to 5,900 lin. ft.

The construction of 2,800 lin. ft. of railway tracks leading to the first and second saw-tooth wharf at Sections 31-32.

The laying of 2,360 lin. ft. of track alongside the new shore wharf, Sections 38-39.

Also 130 lin. ft. in the vicinity of Victoria Bridge; 380 lin. ft. at the end of Alexandra Pier, and 275 lin. ft. extension to the Harbour Yard terminals.

DREDGING AND FILLING

The dredging operations for the season of 1927 were as follows:—

Bickerdike Basin

The work of dredging this basin was continued in conformity with the plan of the previous years. The dredged cut is now about 2,200 ft. in length and the same average width of 250 ft. has been maintained, the depth varying from 22 to 30 ft. at low water.

The seat of the five cribs sunk in the basin this year was satisfactorily dredged. The stone mattress forming the foundation of the cribs was laid and the cribs partly filled to a number of feet above Low Water level.

Portions of the main basin were dredged to 30 ft. at Low Water level following the blasting operations where necessary.

The seat of a pony crib placed in the gap at the end of Bickerdike Pier was dredged and the crib filled after its sinking in place.

Entrance Channel to Bickerdike Basin

Dredging was done in this channel during the season and a length of approximately 700 ft. by about 240 ft. in width was deepened to approximately 30 ft. at Low Water.

New Channel, Sections 58-60

Ships berthing at Racine Pier have to be turned in the narrow channel giving access to this pier from a downstream direction. The pilots, latterly, have expressed their objections to such conditions and the Commissioners, on their representations, have started the dredging of a channel between the upper part of the pier and the entrance channel to the Vickers Dry Dock Basin. This work was put in hand at the end of the month of August and continued until nearly the end of October. Good progress was made on this undertaking, the channel having been dredged for a length of 1,150 ft. in a single cut 40 ft. in width and 30 ft. in depth at Low Water.

Embankment at Sections 50, 51 and 52

The material obtained from the dredging operations in the new channel previously referred to was deposited by derrick on the bank at Sections 50, 51 and 52. The area thus reclaimed will be incorporated in the proposed wharf extensions at that location, forming part of the present harbour development.

Dredging in Connection with New Wharves

At Bickerdike Pier:

The two cribs sunk during the preceding season were raised to final Elevation 119 and completely filled with rock. The pony crib at the end of the pier, and the five cribs sunk on the Basin side were also filled with rock to above Low Water elevation, as previously stated.

At Sections 32-33, the seat of two concrete cribs sunk as part of the third saw-tooth wharf was properly dredged and levelled; a stone mattress was laid, and the cribs filled up to above Low Water elevation after their sinking. The area behind the structure previously erected at that wharf was also filled.

At Section 99, late in the month of October instructions were issued to proceed with the construction of an Industrial Wharf, for service to the Frontenac Oil Co. A concrete crib 112′ 6″ was built and sunk at a certain distance from the shore and a mole was formed by means of the dredged material obtained from the necessary dredging operations to connect the new wharf with the land. The early rising of the water level did not permit the immediate completion of this undertaking as proposed. Sufficient fill was placed in the crib, however, to protect it against ice shoves. The river bed in the immediate vicinity of the wharf was dredged down to 30 ft. at Low Water.

MAINTENANCE DREDGING

Very little Maintenance work was carried out during the season.

The Century Coal berth at Windmill Point was cleared of an obstruction which would not permit ships to moor close to the wharf.

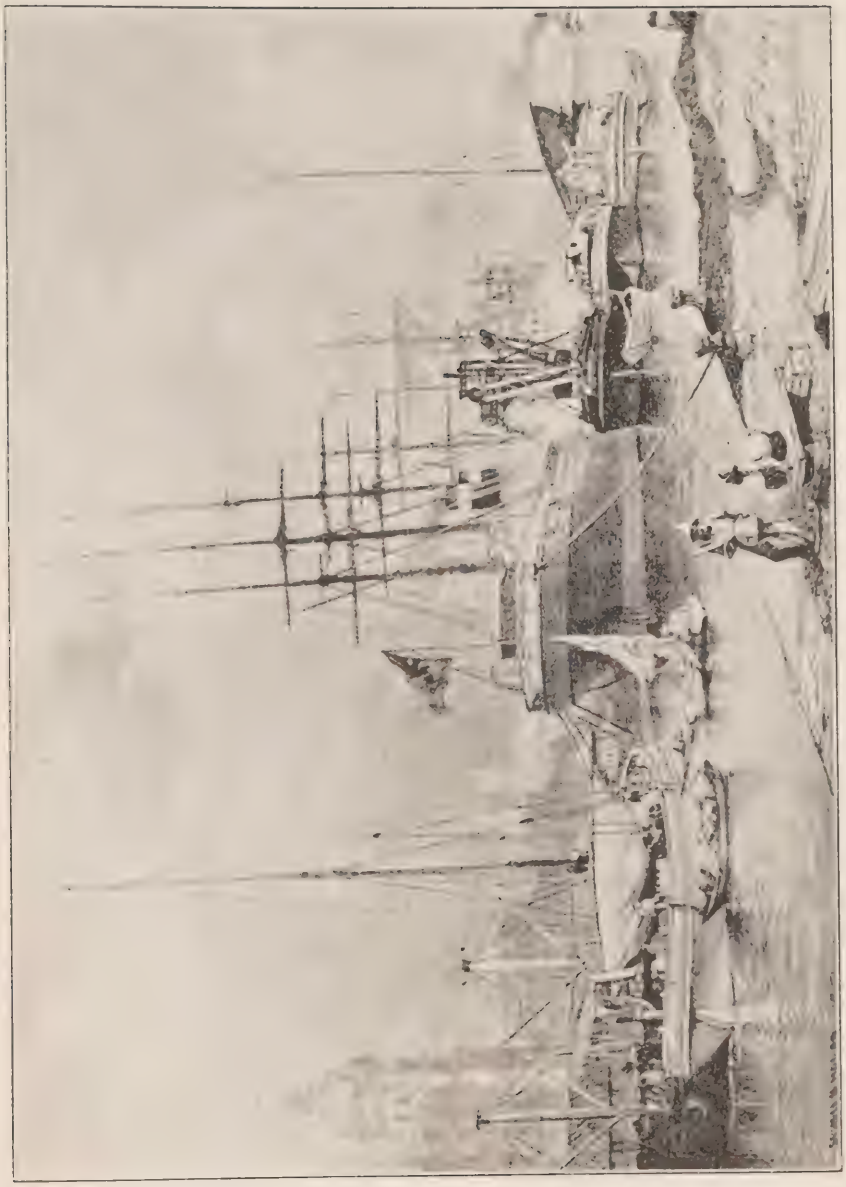
Another obstruction of a similar description was only partly removed at Section 24, the dredge having to move out of the way of a vessel coming into the berth.

A narrow shoal just outside the berth at Sections 12-13 was partially removed, but again the dredge was not allowed to complete the work started on account of shipping operations.

The berth of the Montreal Light, Heat & Power Co. at Section 34 was deepened.

Sundry Work performed by the Dredging Fleet

The fleet performed, in addition to the above, odd works such as continuing the deepening of the Windmill Point Basin, whenever the berths were clear of vessels.



THE BEGINNINGS OF A GREAT PORT

A small amount of work was done at Section 39, clearing the Longueuil Ferry slipway and levelling near the cope of the wharf in the vicinity.

Some old barge hulls which interfered with the approach to the Guard Pier for tugs and scows were removed, and the riverside of the pier, where considerable disintegration had taken place, was refaced with rock for a good portion of its downstream end.

A number of depressions in the Longueuil Wharf were also filled by means of derricks.

The fill at the outer ends of Laurier and Sutherland Piers was scoured out to some extent by the spring ice. These depressions were filled with rock following the necessary repairs to the cribwork.

DRILLING AND BLASTING

The Drill Boat was engaged during most of the season in drilling and blasting in the Bickerdike Basin.

At the end of the season, some test borings were made by the Drill Boat along the downstream side of Alexandra Pier and the upstream side of King Edward Pier.

TESTING AND SWEEPING

As time permitted, testing and sweeping operations were carried out in the central portion of the Harbour and in the Windmill Point Basin. The results showed that this portion of the Harbour is in a very fair condition with the exception of two or three isolated spots, which will be attended to during the 1928 season, when a dredge can be spared from more important work.

CRIB SINKING

As mentioned previously, dredges and derricks, at the request of the contractors on wharf construction, carried out the preparation of the crib seats and were used during the sinking operations.

Eight concrete cribs and one of wood were sunk, representing a length of 976 ft., between October 1st and November 18th.

The following are the quantities of dredging and filling for the season:—

Dredging	Cu. Yds. (Scow)	Cu. Yds. (Scow)
Rock:—		
Inland Basin	100,650	
Entrance to Inland Basin	19,350	
Windmill Point Basin	2,775	
		122,775
Other Material:—		
Inland Basin	450	
Entrance to Inland Basin	40,620	
Windmill Point Basin	3,075	
Section 33	5,450	
do 58-60, New Channel	48,250	
do 99, Frontenac Oil Wharf	23,750	
do 8, Maintenance	1,050	
do 12, do	2,750	
do 24, do	80	
do 34, do	50	
		125,525
Total Dredging		248,300
Filling		
Rock: (By Derrick):—		
Inland Basin	36,610	
Sections 32-35	35,520	
Mackay Pier	10,715	
Laurier Pier	225	
Sutherland Pier	75	
Sections 49-51	32,995	
Longueuil Wharf	1,200	
Section 99, Frontenac Oil Wharf	5,435	
		122,775

	Cu. Yds. (Scow)	Cu. Yds. (Scow)
Other Material: (By Derrick):—		
Inland Basin	22,475	
Sections 32-33	11,435	
Mackay Pier	11,050	
Sections 49-51	60,975	
do 99, Frontenac Oil Wharf..	18,390	
		124,325
Other Material: (By Dump Scow):—		
Section 32	1,200	
		1,200
Total Dredged Material to Fill		248,300
Sundry Items of Filling		
Material Clammed (By Derrick):—		
Inland Basin	1,550	
Sections 32-33	2,925	
Mackay Pier	4,050	
Sections 49-51	1,200	
do 39	500	
do 99	835	
		11,060
Ballast: (By Derrick):—		
Inland Basin	200	
Sections 32-33	200	
Mackay Pier	3,660	
		4,600
Wharf Refuse: (By Derrick):—		
To spoil	1,980	
		1,980
Total Sundry Items of filling by Derrick		17,100

Earth, Cinders, etc., from City Contractors (by Team)

	Cu. Yds. (Estimated)
Bickerdike Pier	10,300
Jacques Cartier Pier	100
Section 28 to 32	58,000
Windmill Point	5,465
Elevator No. 3	900
Total Filling by Teams	74,765

ELECTRICAL BRANCH

Power and Operation

The Harbour Commissioners purchased, under contract, electric power from the Montreal Light, Heat & Power Co., for their requirements, as follows:—

	H.P. Hours
Cold Storage Warehouse	4,723,506
Elevator No. 1 and Conveyors	5,463,065
Elevator No. 2 and Conveyors	2,859,253
Elevator No. 3 and Conveyors	3,485,065
Elevator "B" and Conveyors	2,880,971
Freight Hoists	65,542
Harbour Lighting	953,310
Harbour Yard	758,862
Transit Shed Lighting	569,845
Railway Electrification	2,449,141
Sub-Station No. 3	154,421
Dufresne Construction Co	112,359
Miscellaneous	248,237

Lighting of High and Low Level Wharves

All the lighting of the high and low level wharves for the season of 1927 was carried on by the Harbour Commissioners' Electrical Department, the power being supplied through the several sub-stations.

The number of lamps in service varied from time to time during the year, reaching a maximum of 298 units for the Series Circuits and of 28 for the Multiple Circuit.

Series Circuit	No. 1	58	lamps—	Windmill Point and Bickerdike Pier.
do	No. 2	39	do	McGill St. to Elevator No. 1.
do	No. 3	49	do	Elevator No. 1 to Section 19.
do	No. 4	42	do	Section 19 to Section 22.
do	No. 5	51	do	Section 22 to Section 40.
do	No. 6	59	do	Section 40 to Sutherland Pier.
Total		298	lamps	
Multiple Circuit		28	do	Victoria Pier, Victor and Berri Street Subways.
Grand Total		326	do	

Special Illumination

During the last week of July the Prince of Wales made a visit to the Harbour and additional illumination of the wharves, gates and buildings was provided for the occasion.

The grain elevators and Cold Storage buildings were outlined with from five to nine large flood lights, each on the river side, which brought the buildings into prominent relief from the dark background, and the effect from the river was very noticeable to the passing steamers.

At the west end of Shed No. 2, on the wharf, a reception platform was erected and decorated with flags and coloured lights, and it was here that the Canada Steamships Co.'s S.S. "St. Lawrence," with the Prince of Wales on board, berthed.

The Head Office Building and the various gates to the wharf in this vicinity were all decorated with flags and streamers as well as highly illuminated with clear and coloured lights.

Additional Power Equipment

Further demands for power were caused by the extension of No. 3 Elevator, and extra equipment is being installed in No. 3 Sub-Station to meet this demand. When this extension is completed, about 1,500 H.P. load will have been added to the station services.

Transmission Lines and Service Lines

Transmission and service lines have been constructed to meet the demand for electric light and power throughout the season, the whole showing an increase over the season of 1926.

Telephone System

It was proposed to install a train despatcher's telephone system to cover the electrified railway in order to operate the traffic along the water front more satisfactorily. This system will give better communication over the nine miles of electrified zone and enable the Yard Master to be in touch with his sections without delay. It also permits the train crew to call the Yard Master or the power house should the occasion arise. This is done through a series of jacks placed every 1,000 ft., enabling the locomotive engineer, who carries a portable set in the cab, to call for assistance in the event of a breakdown, or make enquiries in the case of failure of the power. Work on this system has progressed approximately 75% towards completion.

Electrification of Railways

The electrification of the Harbour tracks has been completed, with minor exceptions, and the few sidings or crossovers remaining to be done are being taken care of as required.

Railway Power House Extension

Due to the increased operation of Electric locomotives by the Traffic Department anticipated for the next season of navigation, further provision for railway power had to be made in the Railway Power House with the result that some additional equipment has been installed in this station to take care of the 1928 requirements.

Electrical Equipment for Machine Shops

The Harbour Yard Machine Shops are engaged chiefly on repairs for the Grain Elevators, Cold Storage Warehouse and general Harbour equipment, and are run entirely by electric power for all the tools. The Shops have found it necessary to increase the number of tools, with the result that additional motors and control gear were installed to operate this extra machinery.

No. 5 Station, Elevator "B"

Additional electrical control gear was added to this station during the season of 1927 to operate the power transformers already in place, but not operating to their full capacity. With this additional apparatus, the increased load requirements can be taken care of without any difficulty.

Shed No. 11, No. 1 Station

Work on this station commenced in 1926, but it was during the season of 1927 that it was put into commission and carried No. 2 Elevator load and part of No. 1 Elevator load during the season. The station proved very serviceable during the peak loads of the elevators and conveyor galleries, especially when the car shakers were working to capacity.

The following is a Comparative Statement of freight hoists, supplied with power through the several sub-stations during the season 1927:—

Hoist	Year	Total Teams Carried	No. of Days Op'ted	Started	Stopped
1	1925	9,264	205	Apl. 22	Dec. 19
	1926	11,407	204	26	18
	1927	14,916	205	18	15
2	1925	9,913	197	Apl. 22	Dec. 9
	1926	9,799	201	26	17
	1927	15,190	203	18	10
3	1925	11,265	190	Apl. 22	Dec. 12
	1926	12,499	197	26	11
	1927	16,313	206	18	15

Hoist	Year	Total Teams Carried	No. of Days Op'ted	Started	Stopped
4	1925	2,558	199	Apl. 22	Dec. 12
	1926	4,969	201	26	18
	1927	6,547	193	18	3
5	1925	7,198	195	Apl. 22	Dec. 12
	1926	6,498	197	26	11
	1927	7,471	202	18	10
6	1925	5,819	199	Apl. 22	Dec. 12
	1926	7,045	198	26	14
	1927	8,502	207	18	15
7	1925	10,374	193	Apl. 22	Dec. 5
	1926	8,943	199	26	15
	1927	5,201	200	18	10
8	1925	12,644	201	Apl. 22	Dec. 12
	1926	10,702	202	26	17
	1927	12,948	206	18	15
9	1925	9,613	195	Apl. 24	Dec. 10
	1926	9,492	196	26	11
	1927	10,878	206	18	15

MAINTENANCE

Wharves

The usual Maintenance Force was at work throughout the season, and in addition to the ordinary patching, carried out the following important repairs:—

Made new foundations for 3 mooring posts at Section 7N; for 3 mooring posts Shed 15; for 2 mooring posts at Shed No. 6; for 2 mooring posts at Shed 9; for 2 mooring posts at Section 33; for one mooring post at end of Sutherland Pier; for one mooring post at north-east corner of Tarte Pier; for 4 mooring

posts at Section 41; for 3 mooring posts at east side of Laurier Pier; one mooring post at Section 101.

Wharf planking was replaced as follows:—

400 ft. B.M. of 3″ planking at Section 7S.
600 ft. B.M. of 3″ planking at Section 8.
400 ft. B.M. of 3″ planking at Section 9.
1,000 ft. B.M. of 3″ planking at Shed 4.
2,000 ft. B.M. of 3″ planking at Shed 6.
400 ft. B.M. of 3″ planking at Shed 15.

Timber coping was replaced as follows:—

90 lin. ft. 12″ x 12″ coping at Section 7.
150 lin. ft. 12″ x 12″ coping at Section 8.
300 lin. ft. 12″ x 12″ coping at Shed 4.
200 lin. ft. 12″ x 12″ coping at Shed 6.
70 lin. ft. 12″ x 12″ coping at Shed 9.
150 lin. ft. 12″ x 12″ coping at Laurier Pier.
300 lin. ft. 12″ x 12″ coping at Sutherland Pier.

Piling was driven as follows:—

Section 61, 35 piles and placed two floating platforms to form landing for oil boats and support for oil pipe line.

Section 70, 35 piles for berthing of sand dredge boat and support for sand pipe line.

Section 100, 42 piles for berthing of oil boat and support for oil pipe line.

The following wharves were patched up and repaired:—

Section 7N, 120 ft. long, 6 ft. high and 10 ft. wide.

Section 9, 60 ft. long, 3 ft. high in face of wharf.

Shed No. 4, 60 ft. long, 7 ft. high and 10 ft. wide.

Shed No. 14, 220 ft. long, 18 ft. high in face of Jacques Cartier Pier.

Section 34, 25 ft. long, 6 ft. high, 16 ft. wide.

Section 41, 125 ft. long, 6 ft. high, 16 ft. wide.

Laurier Pier, 175 ft. long, 3 ft. high, 14 ft. wide; also 35 ft. long, 10 ft. high, 7 ft. wide.

Sutherland Pier, 30 ft. long, 6 ft. high, 12 ft. wide.

Section 101, 18 ft. long, 17 ft. high in face of wharf.

Cleaned out intake well, Cold Storage Power House, and repaired bottom and side with 2″ planking.

Repaired stairway from High to Low Level, Section 12, McGill St. Also rebuilt 75′ x 8′ of rubble retaining wall.

A new slipway and ramp was built to accommodate the ferry boat at Section 39. The dimensions were 40 ft. long, 16 ft. wide with retaining walls ranging from 3 to 8 ft. high.

Built in place 4 vertical hanging fenders for shipping, Shed No. 19. Preparation of crib seats Sections 33 and 100.

Transit Sheds

The following are the most important items of work done by the Sheds Maintenance Force during the season:—

The interior, lower floor of Sheds Nos. 6, 9, 10 received two coats of paint.

The exterior, conveyor tower "C" received two coats of paint.

All conveyor tower roofs received one coat of paint (red).

All rolling doors of Sheds Nos. 2 to 25 inclusive were treated with one coat of paint.

Some 300 sliding doors were repaired during the season.

The usual Maintenance of roofs, spouts and gutters was carried out by the Maintenance Force during the season.

The concrete upper floors of Sheds Nos. 2, 3, 4, 5, 6, 7, 8, 9, 10, 13 and 15 were partly resurfaced with Amiesite. In all some 24,450 sq. yds. were laid.

Plumbing

The laying of sewer and water main extension, the equipment of lavatory rooms, the repair and renewal of the plumbing system along the water front, including all buildings, transit sheds, grain elevators, owned by the Commissioners were carried out by the usual plumbing force.

Paving

The following paving was lifted and relaid during the season:—

Shed No. 2, 58 sq. yds. granite blocks, east end ramp.

Shed No. 2, 48 sq. yds. granite blocks, west end ramp.

Roadway between Elevator No. 2 and Shore Wharf, 370 sq. yds. of scoria blocks lifted, cleaned, turned over and relaid.

260 sq. yds. of granite blocks were relaid at Section 20, east end of Elevator No. 2, in and around two new slip diamonds.

3,600 sq. yds. of scoria block paving, low level Victoria Pier, were resurfaced with Amiesite Paving.

Railways

The maintenance of the railways, including the renewal of ties, distribution of rails, upkeep of switches, etc., was carried on throughout the season by the various section gangs.

General

The general cleaning, watering and upkeep of the High and Low Level roadways was kept up during the season.

Shed sweepings and dunnage from all sheds were carted away.

All drains, gullies, etc., were kept clear and flushed with the fire hose as required.

All water connections throughout the Harbour were kept in good order.

All water meters were read at the end of each month and checked up with the City's readings.

All public latrines between Sections 4 and 45 were connected up by the 15th of May and disconnected by the end of November. These were all flushed out twice daily and kept clean and in good order.

Water service in the sheds was connected up and water turned on by May 15th and disconnected by December 10th, except Sheds 2 and 8, which remained on for the winter.

Life Saving Equipment

Every precaution was taken to facilitate the saving of life and the prevention of accidents by the maintenance of railings and the distribution of ropes, gaffs and life preservers at 159 different points along the water front. During the season the lives of a number of persons were saved, but it is regrettable to report that these efforts were again much hampered through the frequent theft of parts of the equipment.

Fire Prevention, etc.

In addition to the 39 five-nozzle and 9 flush fire hydrants between Sections 4 and 45, a 500-ft. hose reel with all appurtenances is stationed on each of the piers in the central harbour, while 33 twenty-gallon fire extinguishers are installed in the transit sheds and elevators. These are inspected daily, are in constant readiness, and their speedy use has on many occasions prevented serious damage.

The quick-acting gates in the Flood Wall are kept in good working order at all times.

The usual force of watchmen, etc., was employed to protect the property of the Commissioners, to guard the public from accident and to regulate the Harbour dumping grounds.

Cold Storage Power House

This plant operated throughout the year without any involuntary interruption. The shell type brine coolers installed last year have continued to operate satisfactorily. 1,927—100-lb. blocks of ice were made and delivered to the various harbour works.

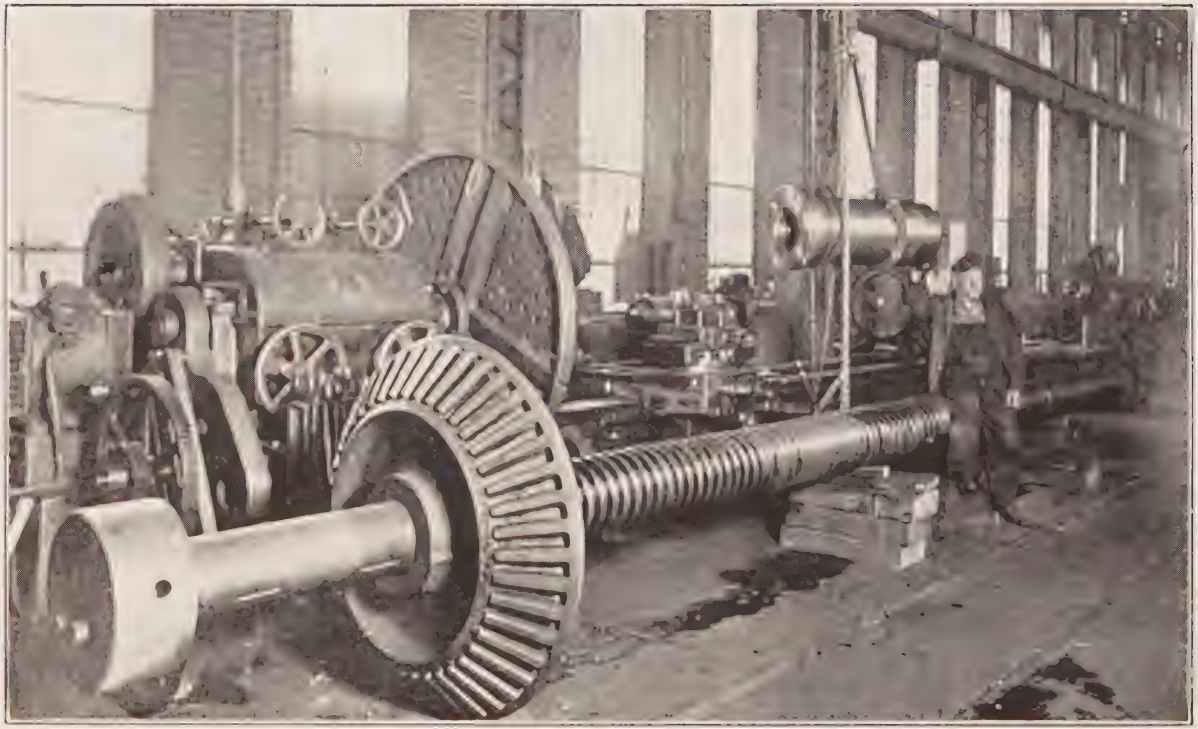
Cold Storage Warehouse

The equipment in this building has been well maintained, no further space was insulated and refrigerated during the year.

Harbour Yard Shops

The total number of orders executed in these shops and their allocation is as follows:—

For Elevator No. 1	165
" Elevator No. 2	245
" Elevator No. 3	125
" Elevator "B"	97
" Conveyor System	31
" Electrical Department	173
" Traffic Department	203
" Railway Maintenance and Locomotive Cranes	100
" Guard Pier Shops and General	209
Total	1,348



Specimen of the work carried out successfully in the Commissioners' Machine Shops

In addition to the above routine work, the central heating system for all buildings at Harbour Yard, started last year, was completed and put into operation. The results obtained are highly satisfactory, showing a decided economy in fuel consumption and labour required to operate.

Fabrication of Car Puller machinery for No. 1 Elevator.
Decoration columns for Confederation Day.
Steel sewer pipes for City of Montreal.
Reception platform for visit of H.R.H. Prince of Wales.

A good standard of service to the various works and plant has been maintained by these shops. In order to cope with the increasing amount of work being handled, the following additional machines have been ordered:—

One 18″ x 8′ Engine Lathe.
One 20″ x 14′ Engine Lathe.
One 5′ Radial Drill.

Guard Pier Shops and Shipyard

The following are the principal items of work carried out in connection with the marine and floating plant during the year:—

Tug "John Young" wintered on the shipways for repairs, as follows:—

New steel floor in engine room.
Repairs to wheelhouse.
New foundation for steering gear.
New top deck.

Hull Repairs:

6 new frames on each side in bunker space.
Two new plates on each side.
Coal bunkers, port and starboard renewed.

Boiler:

Electrically welded bottom end.
Two new stays, boiler saddle repaired.

Main Engine:

Four cylinders were re-bored and fitted with new pistons and new rods.

New guards and new railing.

Scow No. 22 completely rebuilt and launched, May 13th, 1927.

New flat scow No. 67 built and launched May 14th, 1927.

Dump scow No. 36 completely rebuilt and launched August 30th, 1927.

The following units were hauled up on the shipways for repairs:—

One small scow

Scow No. 52 dismantled.

Scows 45, 46, 47, 51, 53 and dump scow No. 38 all repaired.

Derrick No. 8 repaired.

Dredge "John Kennedy" repaired.

Testing boat repaired.

Tug "Robert Mackay" repaired.

Tug "St. Peter" repaired.

Tug "David Seath" repaired.

Dredge No. 5 wintered at Canadian Vickers' plant and underwent hull repairs.

Tug "Passe-partout" lifted twice by Floating Crane for repairs.

Miscellaneous Items

Tug "Sir Hugh Allan," bulkhead and coal bunkers renewed.

Drill Boat boiler retubed completely and fire box renewed.

New cradle made for shipways.

New bronze nut for main lifting screw made and fitted to 75-ton floating crane.

New capstan made and fitted on 75-ton floating crane.

Two five-yard steel clams for derricks were made and five steel clams repaired.

Four seven-yard dredge buckets rebuilt.

One new dipper arm built and two others rebuilt.

Miscellaneous Items (Continued)

Floating Elevator No. 18 maintained ready for service.

General repairs to floating plant machinery.

Sunken tug "Prince Ray" floated in Vickers Basin by Harbour equipment on May 12th, 1927.

The whole of the floating plant was maintained in efficient working order.

Grain Elevators

The in-and-out movement of grain detailed elsewhere in this Report exceeded in volume and weight that of any previous season. The usual thorough winter overhauling was completed in time to receive grain from the first canal vessel on April 26th and from this time until the close of the season the grain-handling plant operated most satisfactorily.

Before the season opened, the rope drives for the two Marine Legs at Elevator No. 2 were replaced by chain drives direct on to motors placed in the legs. Other items attended to during the season included:—

Elevator "B," new gallery jacked up to position, May 6th to June 6th.

Elevator No. 2, gallery on jetty jacked up to position, Nov. 21st to Dec. 15th.

Twelve pits at No. 1 Elevator waterproofed, Dec. 14th to Dec. 31st.

New belt placed in Jamieson Marine Leg, No. 1 Elevator, Oct. 16th.

New belt placed in No. 1 Marine Leg, No. 1 Elevator, Oct. 10th.

New belt placed in Lofter No. 8, No. 1 Elevator, Aug. 7th.

New head pulley placed in No. 1 Marine Leg, No. 2 Elevator, Nov. 20th.

Locomotive Cranes

Coal imports, detailed elsewhere, exceeded those of the previous year and two more locomotive cranes were added to the fleet of cranes owned by the Commissioners. Two new Browning 30-C, eight-wheel type cranes were purchased,

rated lifting capacity 31½ tons, rated working load 94 tons; minimum radius 17 ft.; maximum radius 60 ft., fully equipped for rapid operation. These cranes handle special clam shell buckets of 3 cubic yards capacity.

The new cranes are known as Nos. 9 and 10 respectively. Both cranes were tested and found to be in accordance with specifications.

The working time of the cranes is distributed as follows:—

	1927	1926
On Coal	57%	31%
On Harbour Works	30%	49%
On Miscellaneous Work	13%	20%

Beaudry Street Power House, Electrical Section

This section of the Power House previously heated by means of electric heaters was equipped with radiators and steam supplied from the main existing in the refrigeration section of this building.

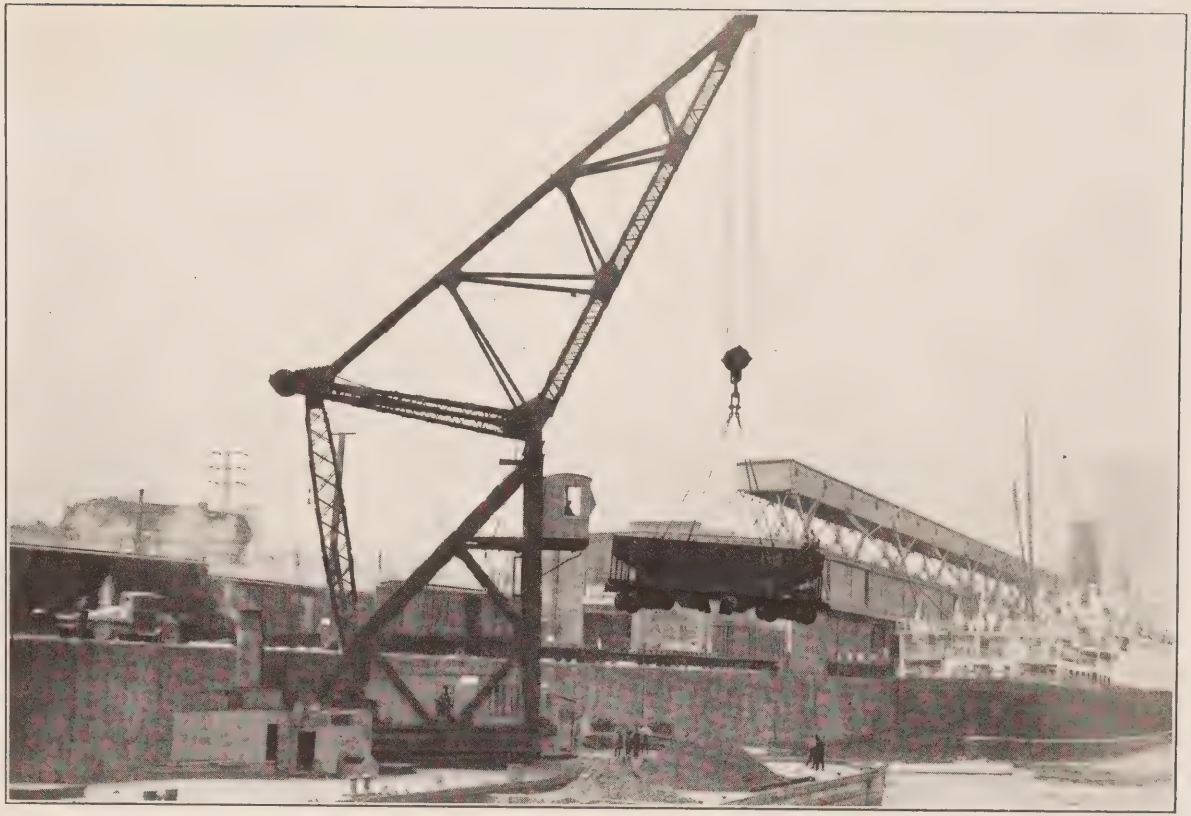
Elevator "B," Power House

A start was made on the installation of a steam heating system in this building to replace the electric heaters now in use.

FLOATING CRANE

The 75-ton Floating Crane, which was added to the equipment of the Port in 1909, was again available for service during the season of 1927, and the following is its record for that season:—

Number of working days		216
Number of days working		154
Total number of lifts:		
Commercial	950	
Commissioners' Service	49	
	—	999
Average weight of lifts:		
Commercial		8 tons
Commissioners' service		28 "



THE COMMISSIONERS' 75 TON CRANE LIFTING A CAR OF COAL

Greatest lift:			
Commercial (Sincennes-McNaughton tug "Long Sault")		45	tons
Commissioners' service (Tug "Aberdeen")		75	"
Greatest Tonnage from single ship:			
S.S. "Valperga"		382	"
Total weight lifted...			
Commercial	7,154		
Commissioners' service	1,351		
		8,505	"
Total weight lifted in season of 1926		15,882	"
Total number of lifts made in 1926		2,164	"

EMPLOYMENT IN HARBOUR OF MONTREAL

The following table shows the maximum and average number of workmen employed by the Harbour Commissioners during the season of 1927, exclusive of men employed by the different contractors on harbour construction work:—

	Maximum	Average
Maintenance of Harbour	380	271
Maintenance of Steel Sheds	21	15
Harbour Yard:		
Carpenters, Blacksmiths, etc	102	97
Round House:		
Machinists, etc	29	27
Sawmill and Timber Boom	12	7
Machine Shop, Guard Pier	167	107
Shipyard	124	73
Dredging Fleet:		
Dredges, Tugs, etc	192	170
Elevator No. 1: Operation	42	38
do Car Shovellers	15	12
do Boat Shovellers	44	38
Elevator No. 2: Operation	44	41
do Car Shovellers	19	13
do Baggers	39	20
do Boat Shovellers	58	47

		Maximum	Average
Elevator No. 3:	Operation	42	41
do	Car Dumper Operation.	19	13
do	Boat Shovellers	85	58
Elevator "B":	Operation	47	42
do	Car Shovellers	18	9
do	Boat Shovellers	45	34
Conveyor Galleries:			
Elevators Nos. 1 and 2		64	63
Elevator No. 3		20	19
Elevator "B"		15	13
Electrical Department		105	91
Traffic Department		121	112
Cold Storage Warehouse:			
Operation and Maintenance		55	54
Cold Storage Powerhouse:			
Operation and Maintenance		11	9
Electrical		15	14
Construction:			
Wharves, tracks, etc		143	80
Police		67	66

WATER LEVELS

The depth of water for navigation in the Montreal Harbour Ship Channel and on the Sill of Lower Lock, Lachine Canal, is given in the following table:—

	Depth on Old Lock Sill, Lachine Canal				Depth in Harbour Channel			
	Average 1913–1927		Average 1927		Average 1926		Average 1927	
	ft.	in.	ft.	in.	ft.	in.	ft.	in.
May	19	3	17	0	35	0	32	5
June	17	5	17	0	32	9	32	5
July	15	10	15	8	31	0	31	1
August	14	10	15	6	29	9	30	11
September	14	3	14	0	29	1	29	5
October	14	3	14	0	29	3	29	5
November	14	8	16	10	31	5	32	3

LIST OF HARBOUR COMMISSIONERS' FLOATING PLANT

1927

Description of Vessel	Hull. Length ft. over	Length in. all	Breadth ft. beam	Breadth in.	Depth ft. over	Depth in. all	When built	Engines. Kind of Engine	No. of cylinders	Dia. of cylinders inches	Length of stroke inches	Pressure of steam lbs.	Capacity of Bucket c.y.	Depth to which Dredge can work ft.	Remarks
Dredges					9 Fd. 5										
J. Kennedy (Boom Spoon)	104	4	37	0	7 Aft.	6	1892	Horizontal non-condensing	2	16	18	125	7	40	Steel Hull, Rblt. 1923-24
No. 5 " "	104	0	36	2	11	0	1910		2	16	18	125	7	40	Steel Hull.
No. 6 " "	104	2	39	2	10	9	1912		2	16	18	140	7	50	Steel Hull.
Derricks															
No. 1 Clam shell	87	2	31	2	9	3	1899	Horizontal high pressure	2	12	14	140			Wooden hull, Rblt. 1925
No. 3 " "	77	0	27	6	8	0	1900		2	12	14	125			Wooden hull. Rebuilt 1923
No. 4 " "	80	5	27	10	7	6	1892		2	12	14	125			Wooden hull. Rebuilt 1923
No. 5 " "	80	1	27	10	7	6	1892		2	12	14	125			Wooden hull. Rebuilt 1923
No. 6 " "	80	1	27	10	7	5	1892		2	12	14	125			Wooden hull, Rblt. 1913
No. 8 " "	87	5	31	0	9	3	1915		2	12	14	140			Wooden hull " 1915
Tugs					Hold										
St. Peter (Fire Tug)	74	8	16	1	8	6	1875	Vertical non-condensing	1	20	22	125			Wooden hull, Rblt. 1921
Aberdeen	79	3	18	3	9	0	1895	Vertical condensing	1	16	24	140			Steel hull.
									1	32					
Robert Mackay	80	9	17	6	10	0	1899		1	16	24	140			Steel hull
									1	32					
Sir Hugh Allan	130	0	26	6	15	0	1911	Vertical triple expansion condensing	2	16	24	180			Steel hull, twin screws.
									2	25					
									2	40					
John Young	91	8	22	0	9	0	1911	Vertical condensing	2	12	18	140			Steel hull, twin screws.
									2	24					

Passe-Partout	49	1	11	3	5	7	1912	Vertical high pressure	1	9	10	110		Wooden hull, Rblt. 1925
David Seath	75	5	18	5	10	2	1915	Vertical condensing	1 1	13 26	22	140		Wooden hull.
Drilling & Blasting Boat	80	0	27	0	over 5	all 6	1895					100		Three 5 in. steam drills Rebuilt 1923
Steam Yacht "Bethalma"	110	4	16	5	10	2	Purch. 1923	Triple Expansion condensing	1 1 1	9 14½ 25	18	200		Steel hull. Rebuilt 1921
Motor Boat "Messenger"	30	2	6	4	3	7	1926	Red Wing 40 HP	4	4½	5½			
Testing boat	81 81	1 4	14 14	0 0	5 5	2 2	1900							Two wooden scows braced 16 ft. apart; overhauled 1924
Grain barge "Ethel"	158	0	27	11	17	2	1910							Capacity about 27,000 bushels
Floating concrete machine	101	0	35	0	8	6	....							Rebuilt 1925
Floating pile driver	60	4	24	10	5	6	1896							
Floating elevator, No. 18	90	6	28	0	8	4	1904	Operating hor. Propelling "	1 1	15 15	34 18	100 110		Capacity about 7,000 bushels per hour
Floating Crane	200	5	13	10	10	0	1909	**Capacity.** 75 tons						Max. load at 51′ radius 75 T. " height at 51′ (hook) 100′
Scows.														
2 Flat scows Nos. 2 & 4	75	0	20	2	6	0	1876	67½ yds.						No. 2, Rebuilt 1925
2 " " Nos. 21 & 22	85	0	25	0	7	5	1891	150 "						No. 22, Rebuilt 1926
1 " " No. 23	85	0	25	0	6	9	1891	150 "						Rebuilt 1925
4 " " Nos. 26-29	85	0	25	0	6	9	1892	150 "						
4 " " Nos. 31&33-35	85	0	25	0	6	9	1893	150 "						
2 " " Nos. 39 & 40	85	0	25	0	6	9	1903	150 "						
2 " " Nos. 41 & 42	87	0	25	0	7	6	1904	150 "						No. 42, Rebuilt 1925
16 " " Nos. 43-47 & 50-60	100	0	30	0	9	0	1911-23	300 "						No. 50 " 1925
2 " " Nos. 61-62	100	0	30	0	9	0	1925	300 "						
4 " " No. 63-66	100	0	30	0	9	0	1926	300 "						
2 " "	40	0	24	9	4	6								Purchased 1926
Diver's scow No. A-1	46	3	18	0	4	3	1924							
Water scow No. A-2	45	4	15	0	3	4	1926							
Dust scow No. A-3	45	4	15	0	3	4	1926							
2 Dump scows, Nos. 36 & 37	106	0	26	10	9	6	1900	200 "						No. 36 Rebit. 1924; No. 37 Rebit. 1925
1 " " No. 38	106	0	26	10	9	6	....	200 "						
1 Flat scow No. 67	100	0	30	0	9	0	1927	300 "						

AVERAGE DEPTH FOR EACH MONTH IN THE 30-FOOT CHANNEL AT SOREL
(30 Feet at Extreme Low Water of 1897)

Year	May	June	July	August	September	October	November	High	Low
1913.....	37′ 0″	34′ 4″	32′ 8″	31′ 10″	31′ 6″	32′ 1″	32′ 7″	38′ 6″	31′ 1″
1914.....	35′ 2″	33′ 0″	32′ 4″	31′ 4″	31′ 3″	30′ 11″	31′ 0″	36′ 10″	30′ 3″
1915.....	34′ 7″	32′ 6″	31′ 6″	31′ 4″	31′ 1″	30′ 11″	30′ 8″	37′ 4″	30′ 1″
1916.....	38′ 9″	37′ 2″	34′ 0″	32′ 5″	31′ 7″	31′ 9″	31′ 10″	40′ 0″	30″ 9′
1917.....	36′ 8″	36′ 6″	34′ 10″	33′ 6″	32′ 3″	32′ 6″	33′ 0″	38′ 2″	31′ 3″
1918.....	35′ 1″	33′ 0″	32′ 10″	30′ 11″	31′ 4″	32′ 6″	33′ 10″	36′ 11″	30′ 3″
1919.....	38′ 7″	35′ 7″	32′ 5″	31′ 4″	31′ 1″	31′ 7″	32′ 9″	39′ 11″	30′ 3″
1920.....	33′ 7″	30′ 10″	30′ 4″	29′ 9″	29′ 4″	29′ 4″	29′ 4″	34′ 8″	28′ 3″
1921.....	34′ 7″	31′ 9″	30′ 10″	31′ 7″	29′ 10″	30′ 2″	30′ 5″	37′ 6″	30′ 1″
1922.....	36′ 0″	33′ 9″	34′ 2″	32′ 2″	31′ 2″	31′ 3″	30′ 11″	37′ 8″	30′ 1″
1923.....	38′ 4″	34′ 6″	32′ 4″	31′ 5″	31′ 4″	30′ 11″	30′ 9″	39′ 1″	30′ 0″
1924.....	38′ 7″	34′ 5″	32′ 5″	31′ 10″	31′ 11″	32′ 3″	31′ 3″	40′ 0″	30′ 1″
1925.....	35′ 2″	33′ 9″	32′ 4″	31′ 8″	30′ 11″	31′ 2″	31′ 9″	36′ 6″	30′ 3″
1926.....	37′ 4″	34′ 6″	32′ 10″	31′ 7″	31′ 1″	31′ 3″	33′ 2″	39′ 6″	30′ 6″
1927.....	34′ 3″	33′ 11″	33′ 3″	32′ 5″	31′ 3″	31′ 4″	34′ 10″	37′ 8″	30′ 5″

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